Pioneer

CD MD TUNER

XC-IS21MD

CD TUNER DECK

XC-IS21T

STEREO POWER AMPLIFIER

M-IS21

SPEAKER SYSTEM

S-IS21

Operating Instructions

IMPORTANT 1

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION

This product contains a laser diode of higher class than 1. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product.
Refer all servicing to qualified personnel.

The following caution label appears on your unit.

Location: rear of the unit

CLASS 1
LASER PRODUCT

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

THE POWER SWITCH IS SECONDARY CONNECTED AND THEREFORE DOES NOT SEPARATE THE UNIT FROM MAINS POWER IN STANDBY POSITION.

This product complies with the Low Voltage Directive (73/23/EEC), EMC Directives (89/336/EEC, 92/31/EEC) and CE Marking Directive (93/68/EEC).

POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause a fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

IMPORTANT 2

FOR USE IN THE UNITED KINGDOM

The wires in this mains lead are coloured in accordance with the following code :

Blue : Neutral
Brown : Live

If the plug provided is unsuitable for your socket outlets, the plug must be cut off and a suitable plug fitted.

The cut-off plug should be disposed of and must not be inserted into any 13 amp socket as this can result in electric shock. The plug or adaptor or the distribution panel should be provided with 5 amp fuse. As the colours of the wires in the mains lead of this appliance may not correspond with coloured markings identifying the terminals in your plug, proceed as follows :
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Do not connect either wire to the earth terminal of a three - pin plug.

NOTE
After replacing or changing a fuse, the fuse cover in the plug must be replaced with a fuse cover which corresponds to the colour of the insert in the base of the plug or the word that is embossed on the base of the plug, and the appliance must not be used without a fuse cover. If lost replacement fuse covers can be obtained from: your dealer.
Only 5 A fuses approved by B.S.I. or A.S.T.A. to B.S. 1362 should be used.

Infringement of Copyright
"Recording and playback of copyrighted material may require consent. See The Copyright, Design and Patents Act 1988."

Thank you for buying this Pioneer product.
Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.
In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

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Cautions Regarding Handling

Location

Install the unit in a well-ventilated location where it will not be exposed to high temperatures or humidity.

- Do not install the unit in a location which is exposed to direct sunlight, or near hot appliances or radiators. Excessive heat can adversely affect the cabinet and internal components.
- Installation of the unit in a damp or dusty environment may result in a malfunction or accident. (Also avoid installation near cookers, etc., where the unit may be exposed to smoke from oil, steam, or heat.)
- Please place this unit on a level surface.
- Placing and using the unit for long periods on heat-generating sources will affect performance.
- Install the unit as far away as possible from your TV. Installation in close proximity to such equipment may cause noise or degradation of the picture.

Do not set a power amplifier or speaker system directly next to the MD CD Tuner or CD Tuner Deck, since the operation of the CD cover will be blocked, possibly resulting in damage or malfunction.

Condensation

When this unit is brought into a warm room from previously cold surroundings or when the room temperature rises sharply, condensation may form inside and the unit may not be able to attain its full performance. To prevent this, allow the unit to stand for about an hour before switching it on or raise the room temperature gradually.

Ventilation

When installing this unit, make sure to leave space around the unit for ventilation to improve heat dissipation (at least 30 cm at the top, 15 cm at the rear, and 15 cm at each side). If not enough space is provided between the unit and walls or other equipment, heat will build up inside, interfering with performance or causing malfunctions.

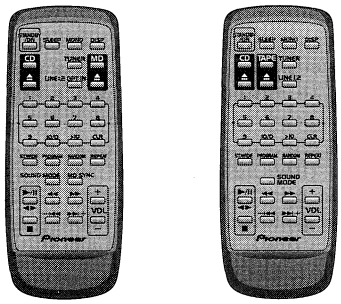
Cleaning the unit

To clean the unit, wipe with a soft, dry cloth. For stubborn dirt, wet a soft cloth with a mild detergent solution made by diluting one part detergent to 5 or 6 parts water, wring well, then wipe off the dirt. Use a dry cloth to wipe the surface dry. Do not use volatile liquids such as benzene and thinner which are harmful to the unit.

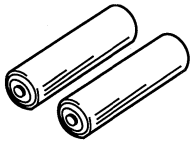
Confirm Supplied Accessories

Remote control unit x 1

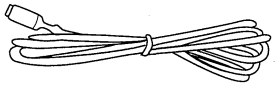
[CD MD Tuner] [CD Tuner Deck]



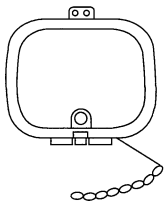
AA/R6P dry cell batteries x 2



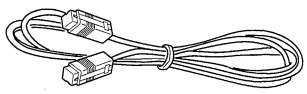
FM antenna x 1



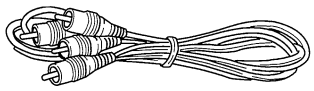
AM antenna x 1



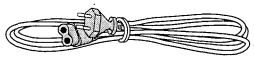
System cable x 1



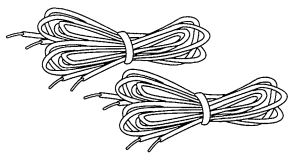
RCA pin-plug stereo cable x 1



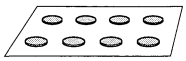
AC power cord x 1



Speaker cords x 2
(included with speaker system)



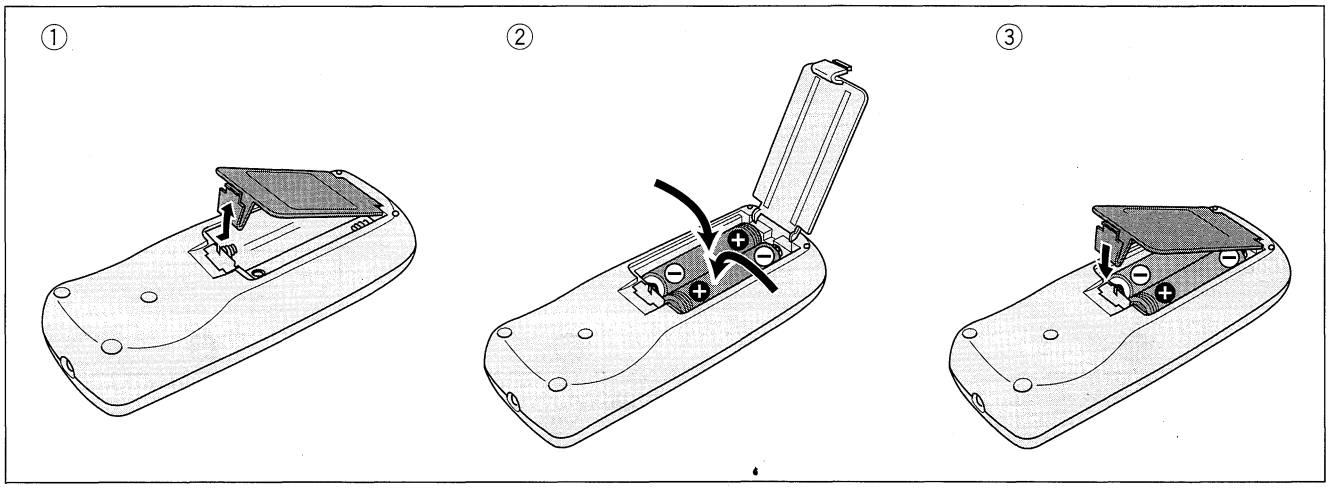
Non skid pads x 8
(included with speaker system)



Loading Batteries into the Remote Control Unit

① Open the battery compartment cover on the back of the remote control unit.
② Insert size AA/R6P dry cell batteries into the battery compartment in accordance with the indications (⊕, ⊖) inside the compartment.
③ Close the cover of the battery case.

Incorrect use of batteries may lead to leakage or rupture. Always follow these guidelines:
A. Always insert batteries into the battery compartment, correctly matching the positive ⊕ and negative ⊖ polarities, as shown by the display inside the compartment.
B. Never mix new and used batteries.
C. Batteries of the same size may have different voltages, depending on brand. Do not mix different brands of batteries.

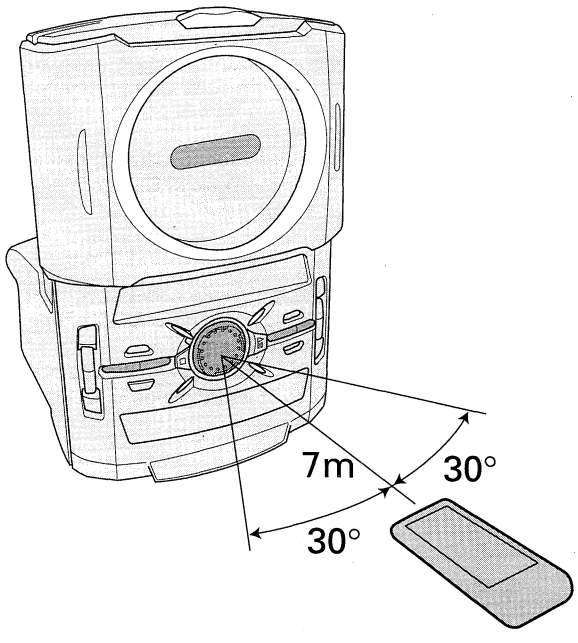


Remote Control Operations

When operating the remote control unit, point the unit's infrared signal transmitter at the remote control receiver (Remote Sensor) on the front panel of the CD MD Tuner or CD Tuner Deck. The remote control unit can be used within a range of about 7 meters from the remote sensor, and within angles of up to about 30 degrees.

NOTE:
If the remote control sensor window is in a position where it receives strong light such as sunlight or fluorescent light, control may not be possible.

[Operation range]

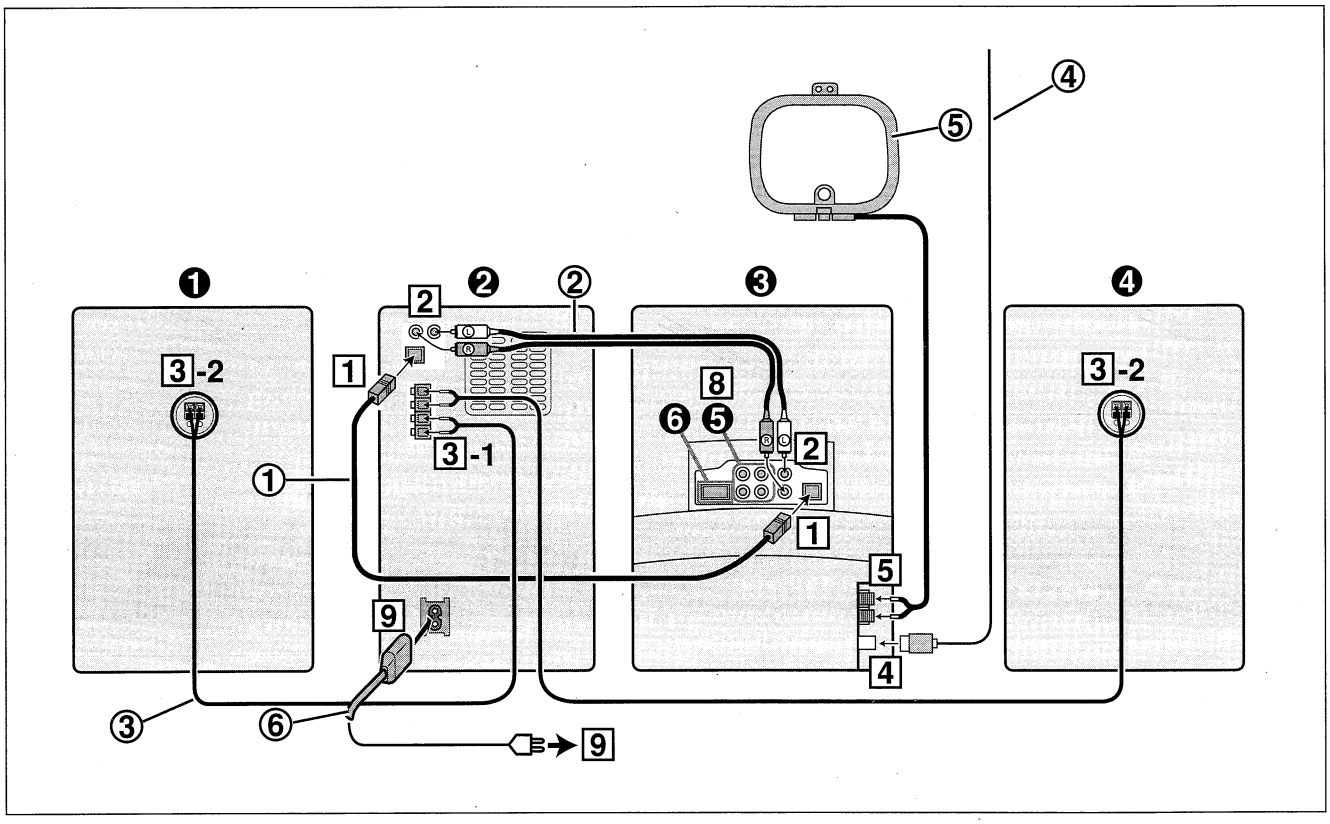


Connections

Before making or changing the connections, switch off the power switch and disconnect the power cord from the AC outlet.

① System cable (accessory)
② RCA pin-plug stereo cable (accessory)
③ Speaker cords (accessory)
④ FM antenna (accessory)
⑤ AM antenna (accessory)
⑥ AC power cord (accessory)

❶ Right speaker
❷ Power amplifier
❸ CD MD Tuner / CD Tuner Deck
❹ Left speaker
❺ LINE 1 IN/OUT jacks
❻ Optional cassette deck connector (FROM CT-IS21)

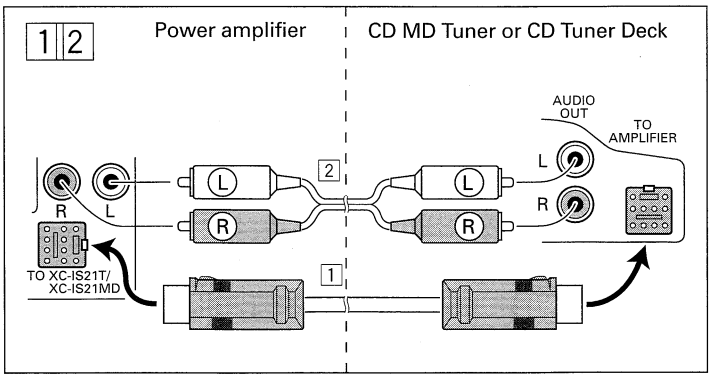


1 Connect system cable.

- Use the accessory system cable to connect the TO AMPLIFIER jack on the CD MD Tuner or CD Tuner Deck to the TO XC-IS21T/XC-IS21MD jack on the power amplifier.

2 Connect the stereo cable.

- Use the accessory RCA pin-plug stereo cable to connect the AUDIO OUT jacks on the CD MD Tuner or CD Tuner Deck to the L, R jacks on the power amplifier.
- Connect the white plug to the L (left) jack and the red plug to the R (right) jack; be sure to press the plugs in securely.

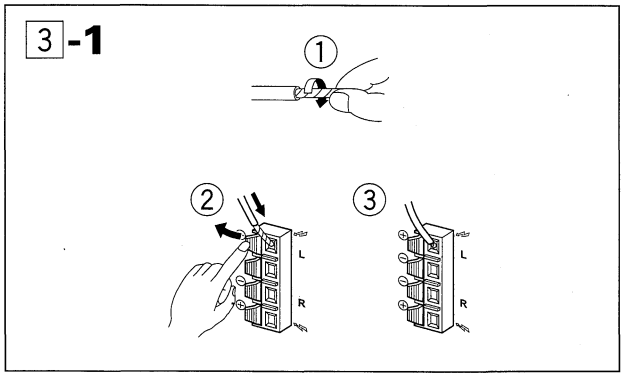


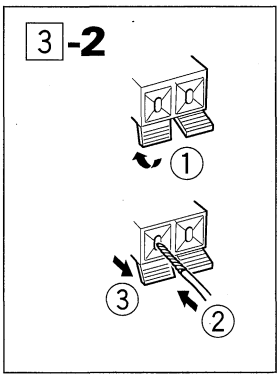
3 Connect the speaker cords to the SPEAKERS terminals.

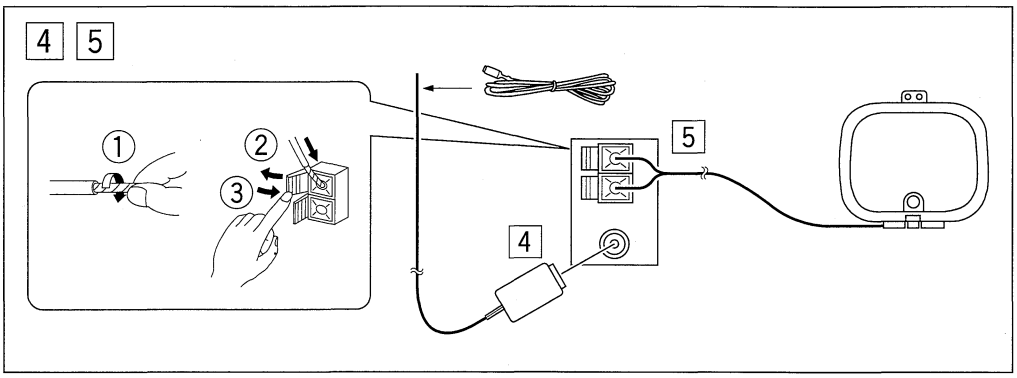
Connect the red cords to the "+" (red) terminals and the black cords to the "–" (black) terminals.

① **Twist the wire strands.**
② **Push away the tab and insert the cord into the terminal.**
③ **Release the tab. Be sure that the cords are fastened securely.**

NOTE:
Do not allow the conductors of the cords to project out of the terminals or to come into contact with other conductors. A breakdown or failure may occur when conductors touch.







Precautions for the speaker systems

- Put the non-skid pads to four corners at the bottom of speaker.
- These speaker systems are not magnetically shielded, and may cause color noise or distortion when placed very near a television set. If this occurs, place the speakers farther away from the television set.

Do not connect to any amplifier other than the one supplied with these speaker systems. Connection to any other amplifier may result in a malfunction or a fire.

4 Connect the FM antenna to the FM ANTENNA jack.

- Stretch out the antenna and affix it to a wall, etc.

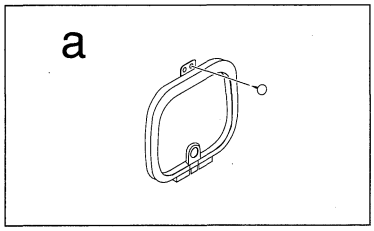
5 Connect the AM antenna to the AM ANTENNA terminals.

① **Twist the wire strands.**
② **Push away the tab and insert the cord into the terminal.**
③ **Pull back the tab. Be sure that the cords are fastened securely.**

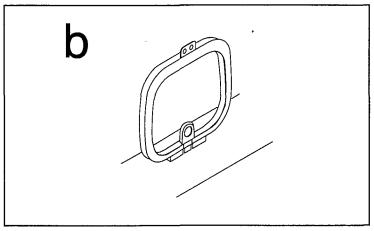
The antenna should be placed at a distance from this unit, and should not be allowed to touch metallic objects. Avoid placing it near CD players, personal computers, television sets, and other devices generating radio frequencies.

Setting up the AM antenna

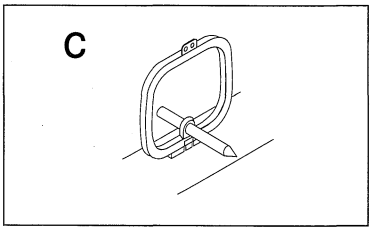
a: Fasten to wall with thumbtack.

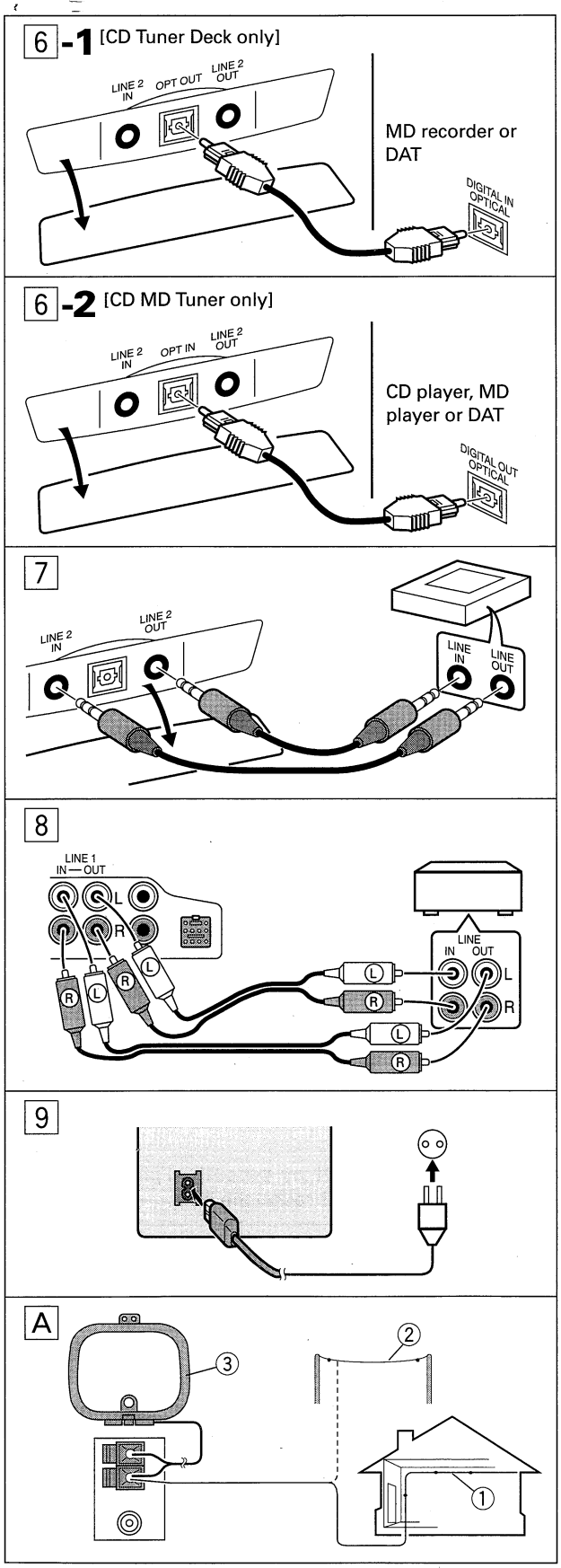


b: Set up in flat location.



c: Support by passing a pen or pencil through the hole.





6-1. Optical digital output jack [CD Tuner Deck only]

- The OPT OUT jack is located underneath the terminal cover on the lower front panel.
- This jack outputs optical digital signals from the built-in CD player.
- Using an optional optical fiber cable, connect the jack to the optical digital input jack of an MD recorder or DAT deck.

6-2. Optical digital input jack [CD MD Tuner only]

- The OPT IN jack is located underneath the terminal cover on the lower front panel.
- This jack can be used to input optical digital signals to the built-in MD recorder.
- Using an optional optical fiber cable, connect the jack to the optical digital output jack of a CD player, MD player, or DAT deck.

7 When using a portable MD recorder or cassette tape recorder, etc., connect to the LINE 2 IN and OUT jacks on the front panel with stereo mini-plug cables.

8 When using an optional cassette deck, VCR or DAT, connect to the LINE 1 IN and OUT jacks on the rear panel with RCA pin-plug stereo cables.

9 Finally, plug the power cord into the AC wall outlet.

NOTE:

Insert the plugs securely into the jacks. Improper connection can lead to sound distortion or malfunction.

Antenna connections

Radio reception is not possible unless the antenna is properly connected.
The strength of broadcast signals varies from one area to another. Signal propagation is especially poor in metropolitan areas, where there are many tall buildings and in mountainous areas. Proper antenna installation is vital to good reception.

External FM antenna installation

Use an external antenna when the signals from the stations are weak and cannot be picked up by the accessory FM antenna, or when the sound heard is accompanied by too much noise.

A External AM antenna

① **Indoor AM antenna**
Use a vinyl-coated wire (5 to 6 meters long). Secure one end to the AM terminal and the other end to a wall or other high location.

② **Outdoor AM antenna**
If reception is still poor even when a lead antenna has been fully extended indoors, stretch out a vinyl-coated wire and secure it outdoors.

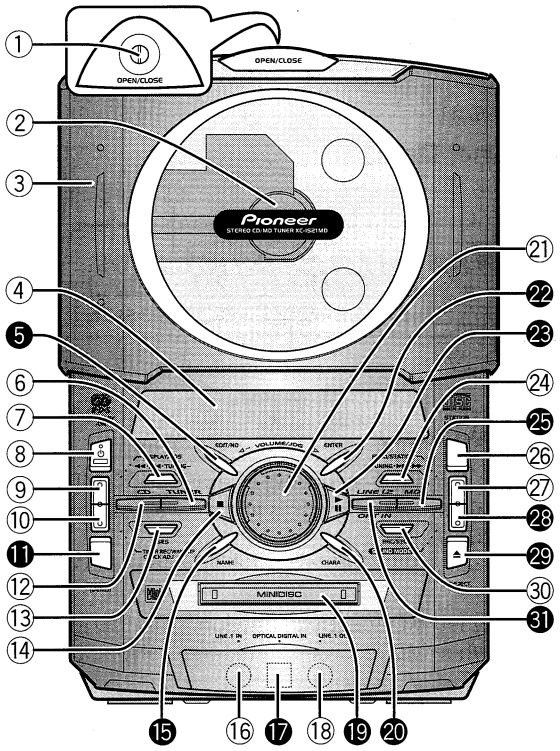
③ **AM loop antenna**

NOTES:

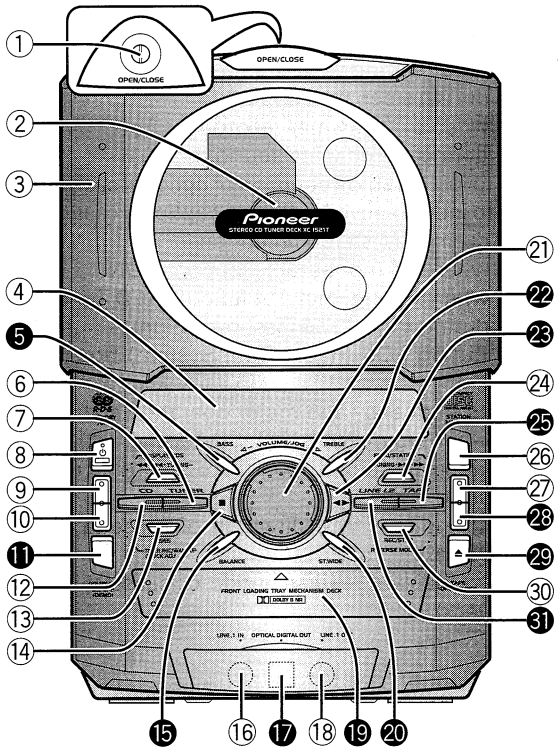
- *Do not detach the AM loop antenna when using the external AM antenna.*
- *⏚ (signal earth) is designed to reduce the noise that occurs when an antenna is connected. It is not a safety earth.*

Front Panel Facilities

[CD MD Tuner]



[CD Tuner Deck]



① **CD cover OPEN/CLOSE touch sensor**
② **CD spindle**
③ **CD slide cover**
④ **Display window**
❺ **EDIT/NO button (CD MD Tuner)**
❺ **BASS button (CD Tuner Deck)**
⑥ **TUNER button**
⑦ **◀◀ • I◀◀ • TUNING – button**
⑧ **STANDBY/ON button and standby indicator**

This is the power switch.
ON : When set to the ON position, power is supplied and the unit becomes operational.
STANDBY : When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.

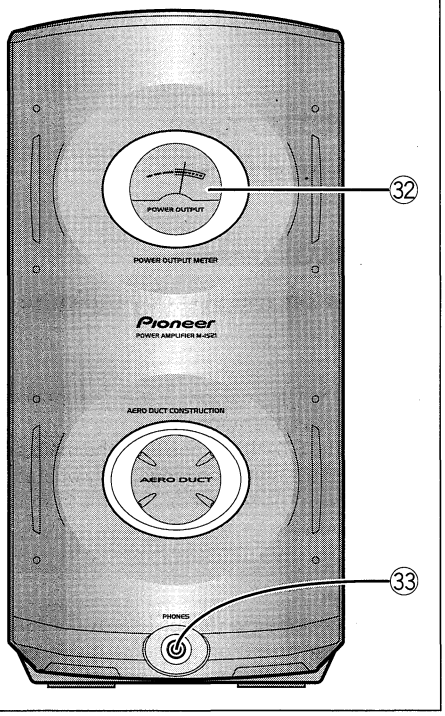
Energy-Saving Design
This product has been designed to reduce energy consumption when the unit is in the power off (standby) mode.
- Consult the Specifications (P. 55) for the power consumption in standby mode.

⑨ **DISPLAY/RDS button**
⑩ **TIMER REC/WAKE UP/CLOCK ADJ button**
⓫ **REC MENU (DEMO) button (CD MD Tuner)**
⓫ **DOLBY* NR ON/OFF (DEMO) button (CD Tuner Deck)**

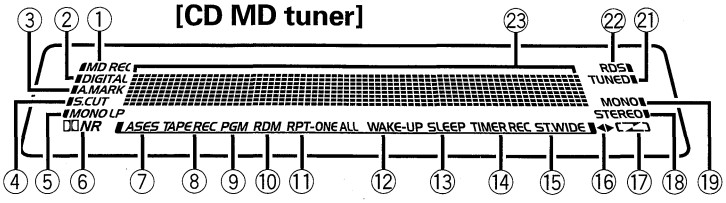
*
- *Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.*
- *"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.*

⑫ **CD button**
⑬ **ASES button**
⑭ **Stop (■) button**
⓯ **NAME button (CD MD Tuner)**
⓯ **BALANCE button (CD Tuner Deck)**
⑯ **LINE 2 IN jack**
⓱ **OPT (Optical) IN jack (CD MD Tuner)**
⓱ **OPT (Optical) OUT jack (CD Tuner Deck)**
⑱ **LINE 2 OUT jack**
⓳ **MD insert slot (CD MD Tuner)**
⓳ **Cassette tray (CD Tuner Deck)**
⓴ **CHARA (Character) button (CD MD Tuner)**
⓴ **ST. (Stereo) WIDE button (CD Tuner Deck)**
㉑ **VOLUME/JOG dial**

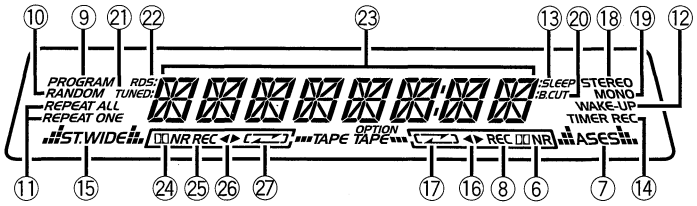
[Power Amplifier]



[CD MD tuner]



[CD Tuner Deck]



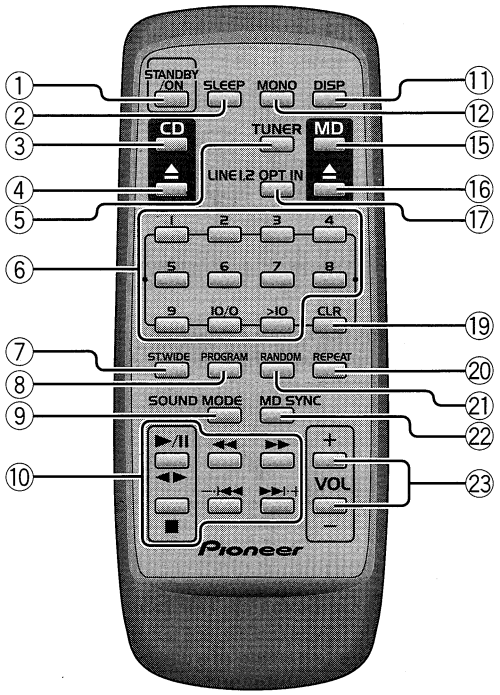
㉒ ENTER button (CD MD Tuner)
㉒ TREBLE button (CD Tuner Deck)
㉓ Play/Pause (►/II) button (CD MD Tuner)
㉓ Play/direction (◄ ►) button (CD Tuner Deck)
㉔ TUNING + • ►►I • ►► button
㉕ MD button (CD MD Tuner)
㉕ TAPE button (CD Tuner Deck)
㉖ STATION MEMORY button
㉗ FREQ (Frequency)/STATION button
㉘ SOUND MODE button (CD MD Tuner)
㉘ REVERSE MODE button (CD Tuner Deck)
㉙ MD EJECT (▲) button (CD MD Tuner)
㉙ TAPE OPEN/CLOSE (▲) button (CD Tuner Deck)
㉚ REC/STOP button
㉛ LINE 1, 2, OPT IN button (CD MD Tuner)
㉛ LINE 1, 2 button (CD Tuner Deck)
㉜ POWER OUTPUT METER
㉝ PHONES jack

[CD MD Tuner]
US and foreign patents licensed from Dolby Laboratories Licensing Corporation.

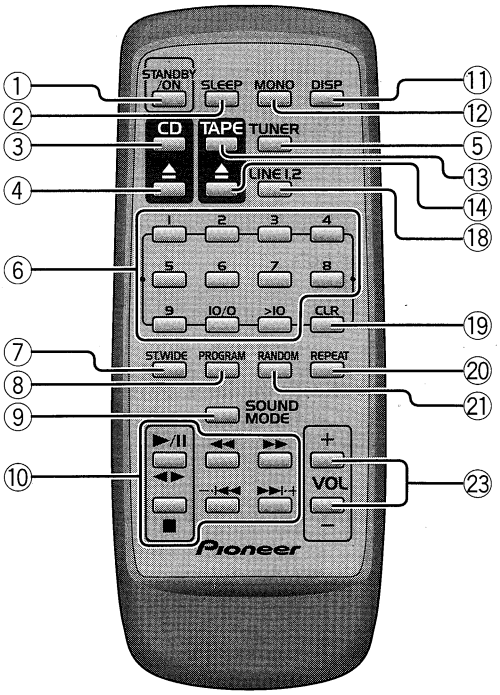
Display window

① Lights during MD recording operation (CD MD Tuner).
② Lights when MD recorder is in digital signal input mode (CD MD Tuner).
③ Lights when MD auto marking function is ON (CD MD Tuner).
④ Lights when MD space cut function is ON (CD MD Tuner).
⑤ Lights when MD recorder is in monaural long play mode (CD MD Tuner).
⑥ Lights when Dolby NR on optional cassette deck is ON.
⑦ Lights when using A.S.E.S. (Auto Synchro Editing System).
⑧ Lights when optional cassette deck is set to recording mode.
⑨ Lights during program mode.
⑩ Lights during random playback.
⑪ Lights during repeat playback.
⑫ Lights when setting wake-up timer.
⑬ Lights during sleep timer operation.
⑭ Lights when setting timer recording.
⑮ Lights during stereo wide sound mode.
⑯ Lights to indicate tape direction of optional cassette deck.
⑰ Lights to indicate reverse mode of optional cassette deck.
⑱ Lights during FM stereo reception.
⑲ Lights when FM monaural reception is ON.
⑳ Lights when setting Beat Cut function (CD Tuner Deck).
㉑ Lights during radio broadcast reception.
㉒ Lights during RDS (Radio Data System) broadcast reception.
㉓ Indicates frequency and major operation status.
㉔ Lights when Dolby NR is ON (CD Tuner Deck).
㉕ Lights when cassette deck is set to recording mode (CD Tuner Deck).
㉖ Lights to indicate tape direction of cassette deck (CD Tuner Deck).
㉗ Lights to indicate reverse mode of cassette deck (CD Tuner Deck).

[CD MD Tuner]



[CD Tuner Deck]



Remote control buttons with the same name or mark as buttons on the front panel of the CD MD Tuner or CD Tuner Deck control the same operations as the corresponding front panel buttons.

① **STANDBY/ON button**

② **SLEEP button**

③ **CD button**

④ **CD cover open/close (▲) button**

⑤ **TUNER button**

⑥ **Digit (1 – 9, 10/0, >10) buttons**

⑦ **ST. (stereo) WIDE button**

⑧ **PROGRAM button**

⑨ **SOUND MODE button**

⑩ **CD/MD/TAPE/TUNER operation buttons**

[CD/MD operation]

►/II: Play/pause button
■: Stop button
◄◄, ►►: Manual search buttons
I◄◄, ►►I: Track search buttons

[TAPE operation]

◄ ►: Play button
■: Stop button
◄◄, ►►: Fast forward, fast reverse buttons
I◄◄, ►►I: Music search buttons

[TUNER operation]

◄◄, ►►: Frequency down, up buttons
–, +: Memory station no. decrement, increment buttons

⑪ **DISP (display) button**

⑫ **MONO button**

⑬ **TAPE button (CD Tuner Deck)**

⑭ **TAPE open/close (▲) button (CD Tuner Deck)**

⑮ **MD button (CD MD Tuner)**

⑯ **MD eject (▲) button (CD MD Tuner)**

⑰ **LINE 1, 2 OPT button (CD MD Tuner)**

⑱ **LINE 1, 2 button (CD Tuner Deck)**

⑲ **CLR (clear) button**

⑳ **REPEAT button**

㉑ **RANDOM button**

㉒ **MD SYNC button (CD MD Tuner)**

㉓ **VOL (volume) +, – button**

Caution Regarding Discs and Tapes Handling

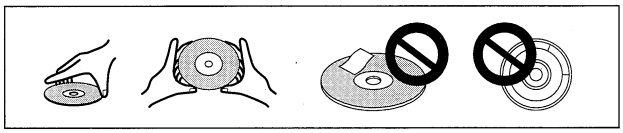
Cleaning and handling compact discs

- Always keep your discs clean by wiping them gently with a soft cloth from the inner edge toward the outer periphery.
- If a disc becomes very dirty, dip a soft cloth in water, and after wringing it out well, wipe the dirt away gently, and then remove any water drops with another soft, dry cloth.
- Do not use record cleaning sprays or anti-static agents on discs. Also, never clean discs with benzene, thinner, or other volatile solvents, since disc surface may be damaged.

- On this player, use discs which display the mark shown right. (Optical audio digital discs.)

COMPACT disc DIGITAL AUDIO

- When holding discs, do not touch their signal surfaces (the side reflecting a "rainbow" pattern). Hold by the edges, or by one edge and the center hole.
- Do not affix gummed labels or tape to the label surfaces. Also, do not scratch or damage the label.
- Discs rotate at high speed inside the player. Do not use damaged (cracked or warped) discs.

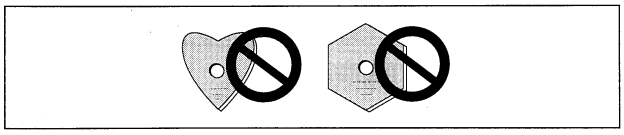


NOTES:

- *When setting an 8 cm (3 in.) CD single, do not use the 8 cm (3 in.) CD single adaptor.*
- *Never attempt to load both 8 cm (3 in.) and 12 cm (5 in.) discs together, since disc damage or other malfunctions may result. Always load only one disc at a time.*

CAUTION RE: USE OF SHAPED CD's

This product is designed for use with conventional, fully circular CD's only.
Use of shaped CD's is not recommended for this product.
Pioneer disclaims all liability arising in connection with the use of shaped CD's.



Storing discs

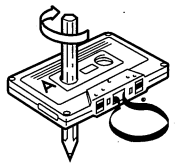
Be careful not to allow discs to warp; always store discs in their cases vertically, avoiding locations with high heat or humidity, or extremely low temperatures.

CD lens cleaner

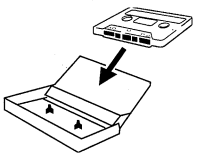
The player's pickup lens should not become dirty in normal use, but if for some reason it should malfunction due to soiling, consult your nearest PIONEER authorized service center. Lens cleaners for CD players are commercially available, but special care should be exercised in their use since some may cause damage to the lens.

How to handle cassette tapes

Is the tape loose, or is some of the tape sticking out of the cassette?
This will damage the tape itself. To remove the slack, insert a pencil into the spool and gently wind it.



Safekeeping
Put the cassette tape back into its case and store it in a location unexposed to magnetic fields, humidity, dust, or oil.



TIPS ON USING CASSETTE TAPES

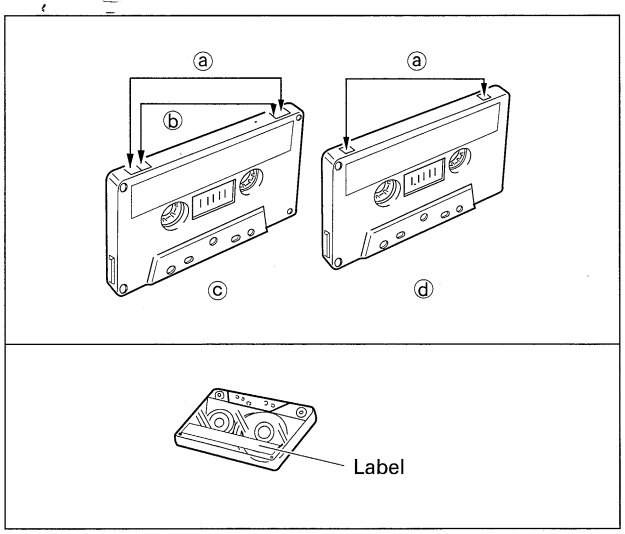
- Leader tape (which does not allow sound to be recorded over it) is provided at the beginning of a cassette tape. Start recording after allowing the tape to run for approx. 5 seconds so that the leader tape clears the recording head.
- Forwarding or reversing the cassette tapes before recording prevents damage to the unit caused by tape slack.

Do not use tapes longer than 90 minutes.
Since tapes longer than 90 minutes are very thin, they jam easily in the pinch roller and capstan, and they are susceptible to other trouble such as irregular winding. Try not to use them in this unit.

Auto Tape Selector
This function uses the tape-type detection holes located on the edge of the cassette to determine the type of tape used, and adjust the player automatically to the appropriate bias and equalization settings.

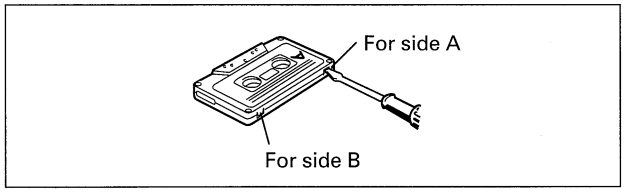
ⓐ Erasure-prevention tabs
ⓑ Tape-type detection holes
ⓒ TYPE II (CrO_2/HIGH)
ⓓ TYPE I (Normal)

NOTE:
When affixing labels to cassette tapes, do not superimpose one label on top of another. Apply only one label.



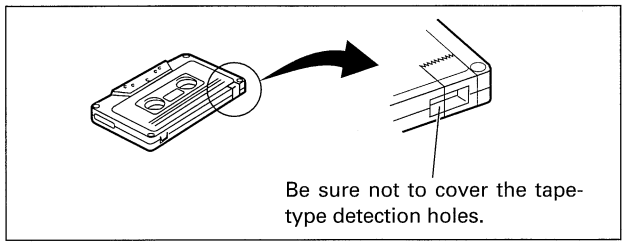
How can you prevent accidental erasure?

When the tab on the cassette shell is broken out with the tip of a screwdriver, it will not be possible to activate the recording function even by pressing the REC/STOP button, so valuable recordings will not be erased in error.



When you want to record again on a cassette with broken erasure prevention tabs, cover the hole with a double layer of adhesive tape.

With TYPE II (HIGH/CrO_2) tapes, be sure not to cover the tape-type detection holes.



Cleaning the head section (CD Tuner Deck)

To enjoy a perfect performance and high-quality sound, clean the head periodically (once every 10 hours). A head cleaning cassette is necessary for cleaning the recording/playback heads. Please use a commercially available "Wet-type" cleaning cassette. (For details, refer to the instructions supplied with the cleaning cassette.)

Caution:

- *Some head cleaning tapes are not designed for use on autoreverse decks. Be careful since there is a danger that you will not be able to remove the cleaning cassette. Ask your PIONEER authorized service center or dealer for details.*
- *Do not use a head cleaning tape which does not conform to the specified standards.*
- *Do not use a dry-type cleaning cassette tape.*
- *After cleaning the head, do not load a cassette tape until the cleaning liquid has dried (about 2 or 3 minutes).*

Demagnetizing the head (CD Tuner Deck)

The recording/playback head becomes magnetized when you use the tape deck for prolonged periods of time. This results in noise generation and the treble dropping off during recording and playback. The recording/playback head should therefore be demagnetized regularly with a commonly sold head demagnetizer.

When demagnetizing the head, switch the unit's power ON.

To avoid adversely affecting the receiver and speakers, be sure to set the volume level to the minimum. Also disconnect the headphone plug from the PHONES jack.

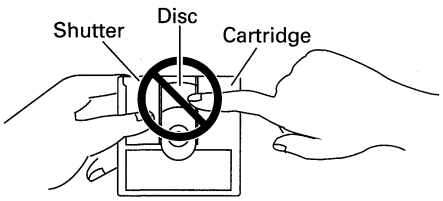
For further details, refer to the operating instructions accompanying your head demagnetizer.

Caring for your minidiscs

■ **Always use MiniDiscs bearing the mark noted to the right.**

CAUTION!

- *Never touch the surface of a MD directly.*
- *Do not attempt to open the shutter by force.*
- *Do not disassemble.*



■ Storage

- Always store discs inside their cases.
- Avoid storing discs in the following kinds of locations:
  - Places exposed to high temperatures or humidity.
  - Places exposed to direct sunlight.
  - Places exposed to infiltration by sand and dust.

■ Caring for the Cartridge

Wipe away dirt and fingerprints with a soft cloth.

■ Applying Labels

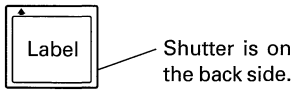
Follow the accompanying rules when applying labels. If labels are not applied correctly, it may become impossible to remove the MD.

- Apply labels only in the designated area.
- Do not apply one label overlapping another.
- If a label becomes wrinkled or loose, replace it with a new label.

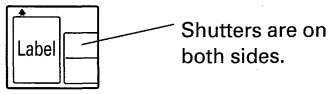
■ Types of MiniDiscs

MiniDiscs may be either recordable, or playback-only.

- **Playback-only MD (recording not possible)**
  Playback-only MiniDiscs are used for commercially available prerecorded music discs. These discs are recorded using the same optical recording format as that employed on conventional compact discs.

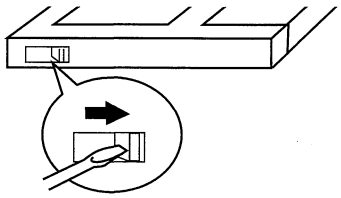


- **Recordable MD**
  Recordable MiniDiscs are sold "empty," and use magneto-optical technology to allow repeated recording and erasing.



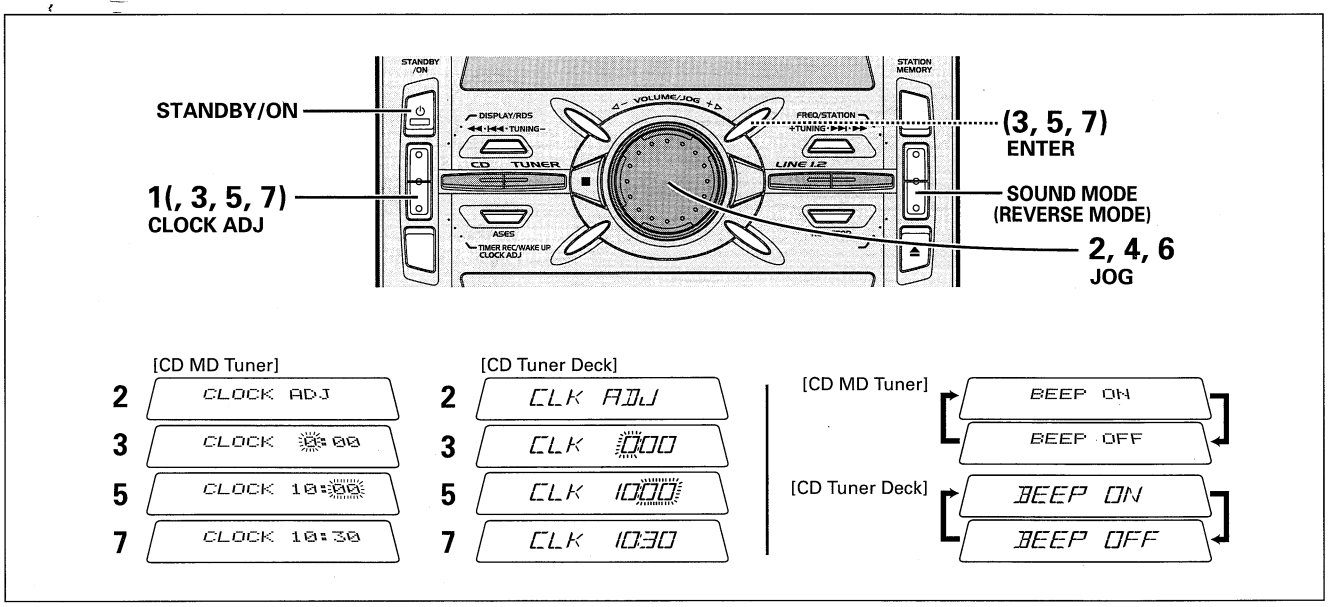
In order to prevent accidental erasure of your recordings:

An accidental erasure-prevention tab is located on the side of the MD. Set it to the open position to prevent recording on the disc.



If you later decide to record on the disc again, slide the tab to the closed position.

Setting the Clock



- Before turning on the power, please review the "CONNECTIONS" section and confirm that the speakers, antenna, and other components have been connected properly.
- When the power plug is connected into an AC wall outlet, the unit enters the demonstration mode. Press the STANDBY/ON switch to cancel the demonstration mode.
- This clock provides a 24-hour display.
- The remote control unit cannot be used to set the clock.

Example: To set the clock to 10:30 (A.M.).

1. **Press the CLOCK ADJ button.**
2. **Turn the JOG dial to select "CLOCK ADJ" or "CLK ADJ".**
3. **Press the CLOCK ADJ button (Press ENTER button when using CD MD Tuner).**
4. **Turn the JOG dial to set the hour to "10."**
5. **Press the CLOCK ADJ button (Press ENTER button when using CD MD Tuner).**
6. **Turn the JOG dial to set the minutes to "30."**
7. **To start the clock operation, press the CLOCK ADJ button (Press ENTER button when using CD MD Tuner).**

- To set the clock most accurately, it is recommended to use your local telephone service's time signal.

NOTES:

- *The timer functions will not operate if the clock has not been set properly to the current time.*
- *If the power source is disconnected or interrupted, the clock display will flash to indicate that the correct time is no longer set. In this event, reset the clock to the correct current time.*
- *While playing components using the various functions, the DISPLAY/RDS (DISP) button can be pressed to display the current clock time.*
- *If the DISPLAY/RDS (DISP) button is pressed when the unit is in the power off (standby) mode, the current time will be displayed.*

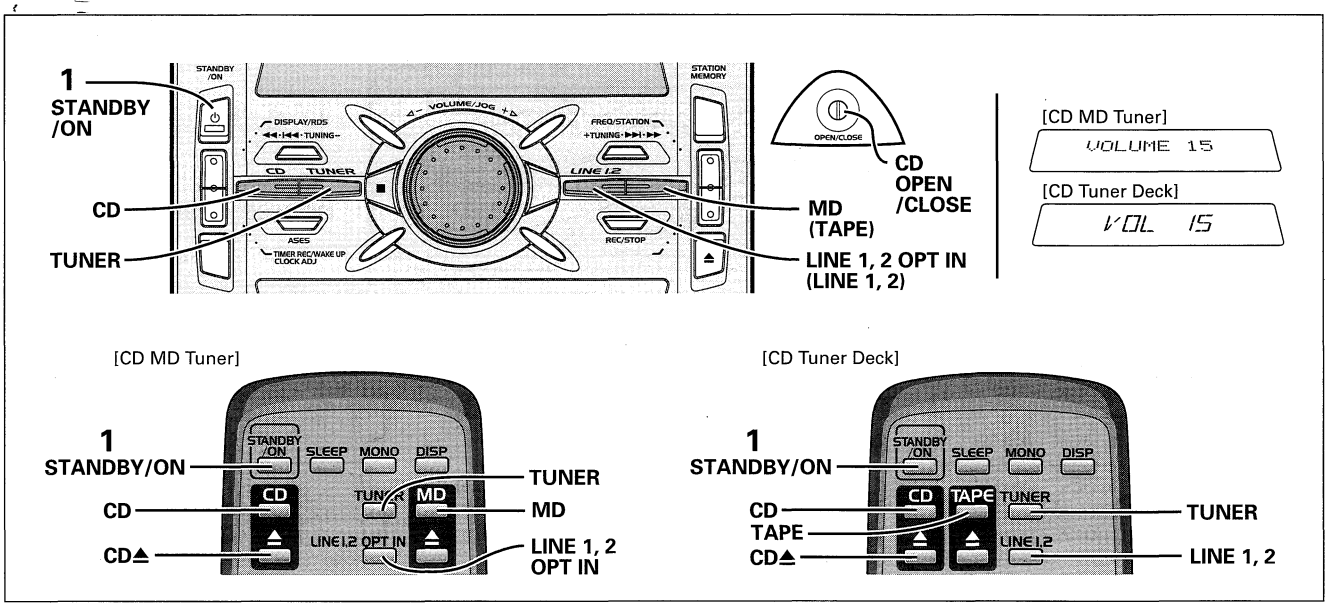
To Turn Off Command Beep

The unit has been factory set to produce a response beep whenever an operation button is pressed. The response beep can be turned off if desired, in the following way:

1. **Turn off power.**
2. **Hold the SOUND MODE or REVERSE MODE button depressed for three or more seconds.**

The notice "BEEP OFF" will appear in the display window, indicating that the beep sound has been turned off. To restore the beep sound, perform the above procedure once again so that "BEEP ON" appears in the display window.

Turning On the Power



1. **Press the STANDBY/ON switch (or STANDBY/ON button on the remote control unit).**
   The volume level is displayed.

- To turn the power off:
  Press the STANDBY/ON switch or the remote control unit's STANDBY/ON button again.

Direct power on

Power can also be turned on by pressing one of the following buttons.

TUNER:
Power turns on, radio turns on and play begins.

CD:
If a CD is loaded, power turns on and play begins.

TAPE (CD Tuner Deck):
If a cassette tape is loaded, power turns on and playback begins.

MD (CD MD Tuner):
If an MD is loaded, power turns on and play begins.

LINE 1, 2 OPT IN (LINE 1, 2):
If the component connected to the external input connectors (LINE 1 or 2) is operating, the sound from that component will be heard.

- In the CD MD Tuner, changes alternately between OPT DIGITAL and LINE 1, 2.

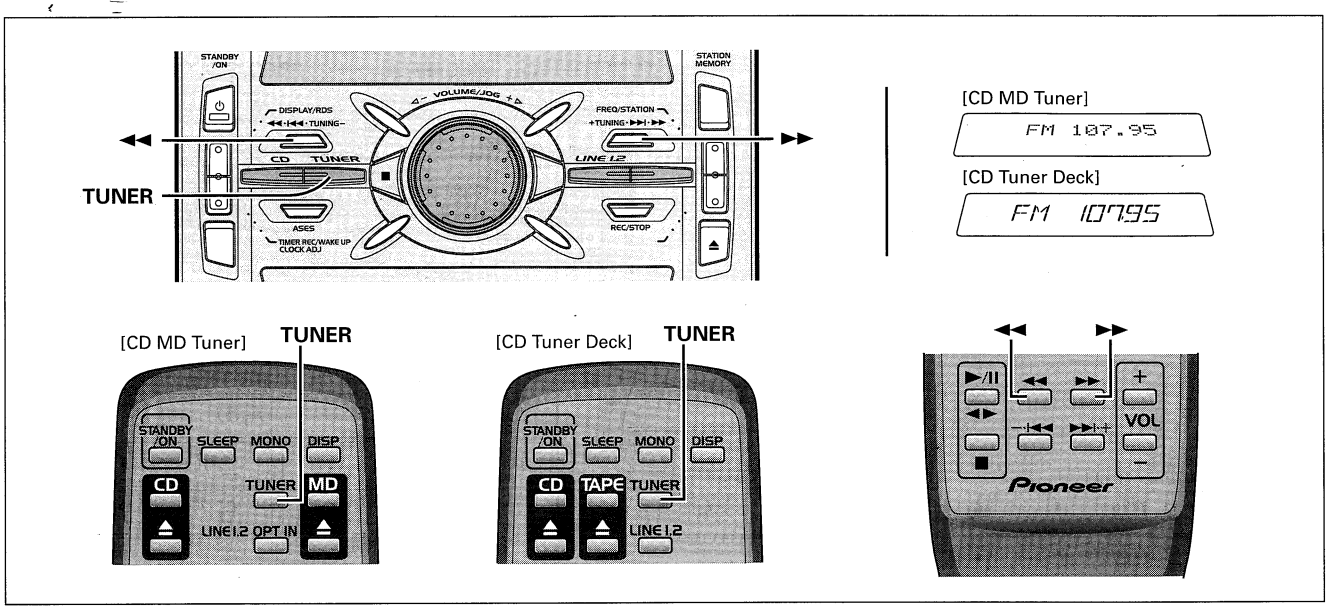
The function changes in the following order when the "LINE 1, 2" button on the main unit or remote control unit is pressed:

[CD MD Tuner]
OPT DIGITAL → LINE1 → LINE 2

[CD Tuner Deck]
LINE1 → LINE 2

CD OPEN/CLOSE (▲):
Power turns on and open the CD cover.

Listening to a Radio Broadcast



Broadcast reception

- Do not place the AM antenna on a metallic case or near a CD player, LD player, DAT recorder, personal computer or TV set. Any of these installations will cause noise in reception.
- Broadcast reception is not possible unless an antenna is connected, so be sure to connect one.

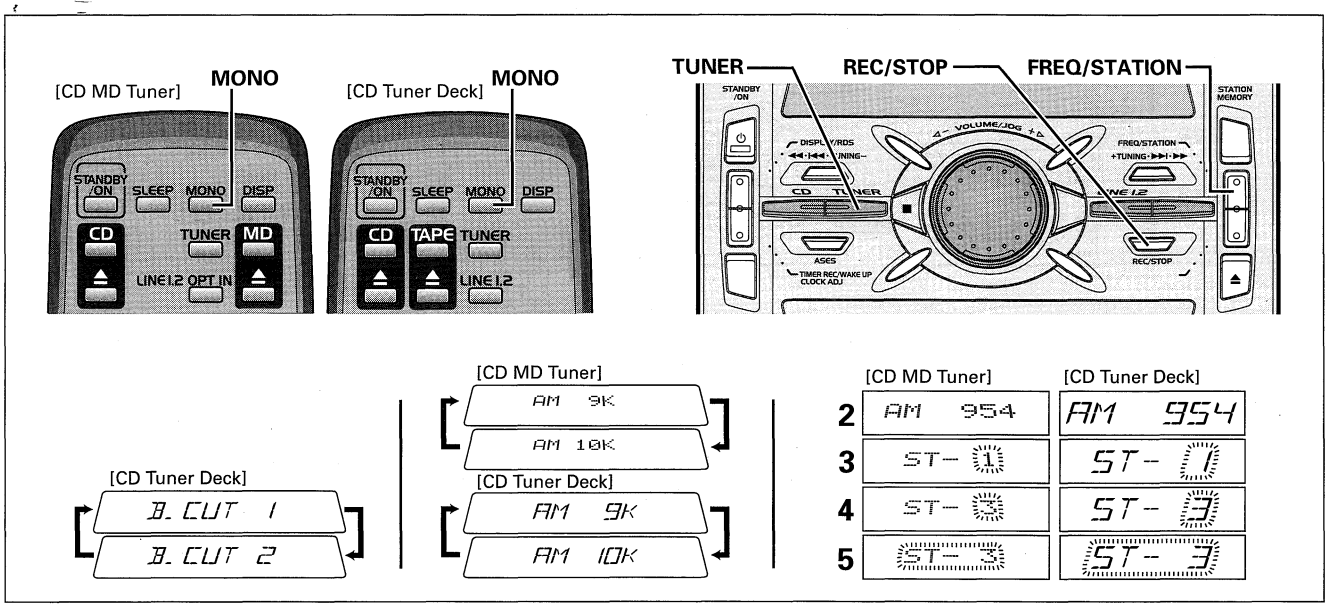
1. **Press the TUNER button to select either the FM or AM band.**
   Alternates when pressed FM ◄—► AM
2. **Press the ◄◄ or ►► button for lower or higher frequencies.**

[Manual tuning]
Press the ◄◄ or ►► button and release quickly.
The tuning frequency will change by one step each time the button is pressed. Press as many times as necessary to tune in to the desired station. The TUNED indicator lights on the display window when the station is tuned in best.

[Auto tuning]
Press the ◄◄ or ►► button until the frequency starts to change, then release it.
The tuner will automatically search for a broadcasting station, stops when one is found and the TUNED indicator lights on the display window. To search for another station, press again.
- To interrupt auto tuning, press the ◄◄ or ►► button again.

[High-speed manual tuning]
Press and hold the ◄◄ or ►► button.
The frequency will change continuously and stop when you remove your finger from the button.

When a stereo broadcast is received, the STEREO indicator will light.
When the MONO indicator lights, it means that the current broadcast is being heard in monaural sound (refer to p. 18).



MONO reception

If a stereo broadcast exhibits high levels of noise, use the following procedure to set to monaural reception. The sound from the speakers will no longer be heard in stereo, but the level of noise should be reduced.

Press the MONO button on the remote control unit.
The MONO indicator will light on the display window.

AUTO ⟶ MONO

NOTE:
Once the MONO mode has been set, it will remain set until manually changed. When you have finished listening to a broadcast with MONO set to ON, it is recommended to reset the reception mode to AUTO to allow stereo reception of subsequent broadcasts.

Beat cut function (CD Tuner Deck only)

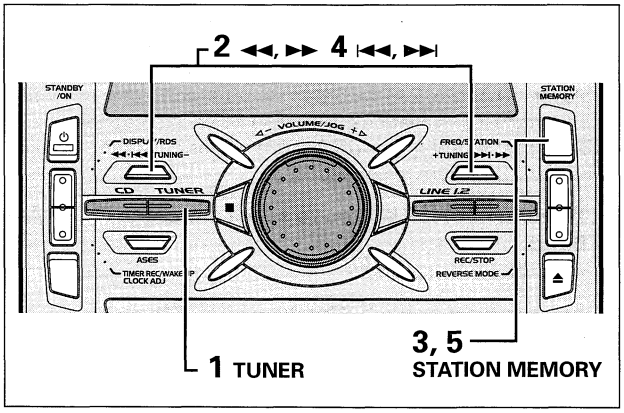
If noise occurs during recording an AM broadcast, perform the following procedures to reduce the noise.

1. **Turn off the power.**
2. **Press the REC/STOP button for more than 3 seconds.**
   The notice "B.CUT 2" will appear in the display window. To return the Beat Cut function, repeat steps 1 and 2; the notice "B.CUT 1" will appear in the display window.

To change the frequency step

If you need to change the frequency step (AM: 9 kHz/10 kHz, FM: 50 kHz/100 kHz), follow the next procedure.

1. **Turn off the power.**
2. **Press the FREQ/STATION button for more than 3 seconds.**
   Displays a frequency step.



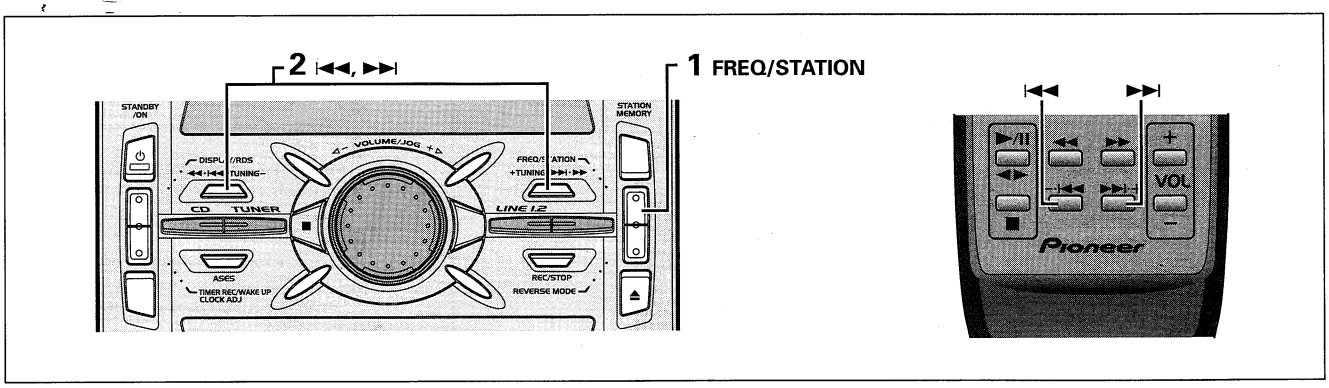
Memorizing broadcast stations

You can memorize up to 24 FM/AM stations.

Example : To memorize an AM station (frequency 954 kHz) in preset station 3.

1. **Press the TUNER button to select AM.**
2. **Tune into the 954 kHz with the ◄◄ or ►► button.**
3. **Press the STATION MEMORY button.**
4. **While the station indication is flashing, press the I◄◄ or ►►I button to select ST–3.**
5. **Press the STATION MEMORY button.**
   The display will flash to indicate completion of the memory process.

NOTE:
If a radio station is stored in a memory position containing previously stored station information, the previous station's data will be overwritten by the new station data.



Station call

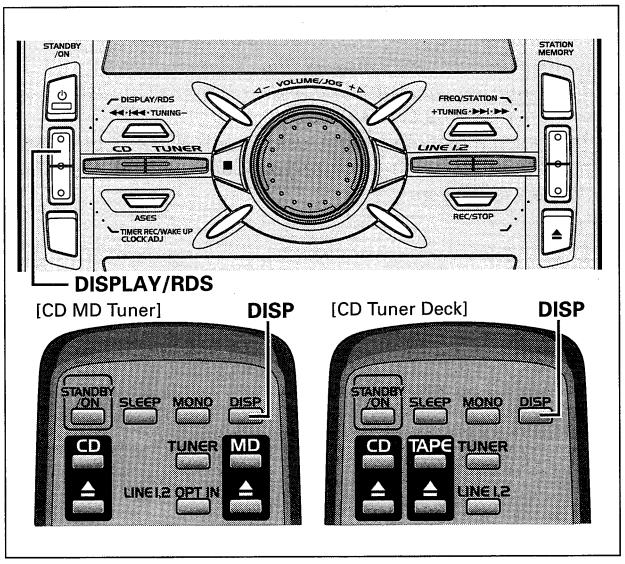
Station call means to receive (tune in) stations which have been preset in the station memory.

1. **Press the FREQ/STATION button to select the station mode.**
   - When using the remote control, you can perform station call by pressing the |◄◄/►►| button. There is no need to press the FREQ/STATION button.
2. **Press the |◄◄ or ►►| button to select the desired station.**

- The remote control unit's digit buttons can be used to select the station. Press the digit button corresponding to the station number while the unit is in the TUNER function mode.
  To select a station number of 11 or higher, use the >10 button (same as CD Direct Play on page 25).

NOTES:

- *You can press the FREQ/STATION button to see the station No. or frequency.*
- *The memorized stations will not be erased even if the power is turned off. Even if the AC power cord is unplugged, or there is a power failure, stations remain in memory for several days.*
- *If the memorized stations have been erased, memorize them again.*



To change display modes

When using the tuner function:

- Use the DISPLAY/RDS (DISP) button to change the mode. Each time the button is pressed, the mode changes in the sequence shown:

During broadcast reception

1 Station frequency (Station number)
↓
(RDS displays)
↓
2 Current time

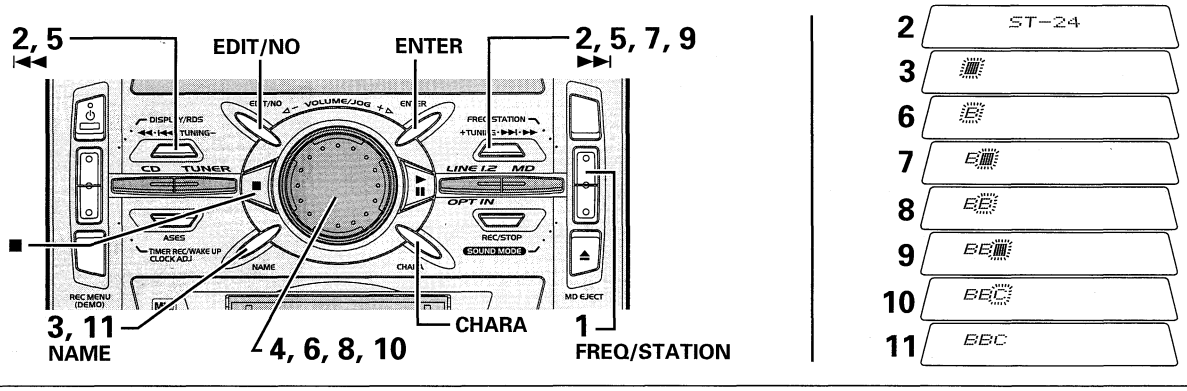
From Tuner to MD (display during recording)

1 Station frequency (Station number)
↓
(RDS displays)
↓
2 MD track name Scroll display
↓
3 MD recording track number and recording time
↓
4 MD recording track number and remaining recording time
↓
5 Current time

From Tuner to Tape (display during recording)

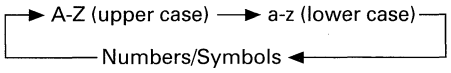
1 Station frequency (Station number)
↓
(RDS displays)
↓
2 Tape counter
↓
3 Current time

Station Name Function (CD MD Tuner only)



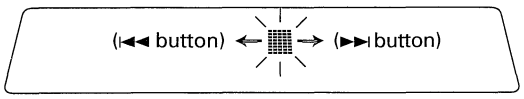
- Station numbers recorded in the station memory can be given names using up to 9 characters.
  Example: To record the name "BBC" for the station recorded in memory position 24.

1. **Press the FREQ/STATION button to select the station display.**
2. **Use the ⏮, ⏭ buttons to select the station position you wish to name.**
3. **Press the NAME button.**
4. **Turn the JOG dial to select the type of character (each time the CHARA button is pressed, the character mode changes in the sequence shown):**



Types of characters that can be used with the Station Name function:
- Alphabet (upper case):
  ABCDEFGHIJKLMNOPQRSTUVWXYZ. , / □ (space)
- Alphabet (lower case):
  abcdefghijklmnopqrstuvwxyz . , / □ (space)
- Numbers/symbols:
  0123456789!"#$%&'()*+,–./:;<=>?@_` □ (space)

5. **Use the ⏮ and ⏭ buttons to move the cursor to the desired character position.**



- When the ⏮ button is pressed, the cursor moves to the left.
- When the ⏭ button is pressed, the cursor moves to the right.

6. **Turn the JOG dial to select character "B."**
7. **Press the ⏭ button (cursor moves to the second character position).**
8. **Turn the JOG dial to select character "B".**
9. **Press the ⏭ button (cursor moves to the third character position).**
10. **Turn the JOG dial to select character "C".**
11. **Press the NAME button.**

■ **To cancel the setting operation midway through, press the stop (■) button.**

NOTES:
- *If you do not wish to enter a character in a position, press the ⏭ button to move the cursor to the next position.*
- *To return to a previous character position, press the ⏮ button to move backwards.*
- *To erase a character you have input, move the cursor to the character position, then press the EDIT/NO button.*
- *To insert a character, use the ⏮ or ⏭ buttons to move the cursor to the desired insert position. Then turn the JOG dial to select the character, and press the ENTER button to confirm the selection.*
- *The space character is located at the end of each character list (in the alphabet lists, following the "/").*
- *To change the character type midway through the setting operation, press the CHARA button.*
- *To change a recorded name, use the ⏮ and ⏭ buttons to move the cursor to the position you wish to change, then enter the new characters.*

RDS (Radio Data System) Broadcast Reception

What is RDS (Radio Data System)

In the RDS system, FM broadcast stations transmit information such as station name and programme type in addition to audio signals. This unit receives and displays the following three kinds of data.

RT (Radio Text) data

A message transmitted from the broadcast station using a maximum of 64 characters.

PS (Program Service Name) data

This refers to the broadcast station name transmitted by FM broadcast station.

PTY (Program Type) data

During reception of FM program, this data indicates the type of program.

The following are the 31 PTY data titles transmitted.

News [NEWS]
- Short accounts of facts, events and publicly expressed views, reportage and actuality.

Current affairs [AFFAIRS]
- Topical programme expanding or enlarging upon the news, generally in a different presentation style or concept, including debate, or analysis.

Information [INFO]
- Programme whose purpose of which is to impart advice in the widest sense.

Sport [SPORT]
- Programme concerned with any aspect of Sports.

Education [EDUCATE]
- Programme intended primarily to educate, of which the formal element is fundamental.

Drama [DRAMA]
- All radio plays and serials.

Culture [CULTURE]
- Programmes concerned with any aspect of national or regional culture, including language, theatre, etc.

Science [SCIENCE]
- Programmes about Natural Science and Technology.

Varied [VARIED]
- Used for mainly speech-based programmes usually of light-entertainment nature, not covered by other categories. Examples include: quizzes, panel games and personality interviews.

Pop [POP M]
- Commercial music, which would generally be considered to be of current popular appeal, often featuring current or recent record sales charts.

Rock [ROCK M]
- Contemporary modern music, usually written and performed by young musicians.

M.O.R [M.O.R. M]
- (Middle of the Road Music). Common term to describe music considered to be "easy-listening", as opposed to Pop, Rock or Classical. Music in this category is often but not always, vocal, and usually of short duration.

Light classics [LIGHT M]
- Classical Musical for general, rather than specialist appreciation. Examples of music in this category are instrumental music, and vocal or choral works.

Serious classics [CLASSICS]
- Performances of major orchestral works, symphonies, chamber music etc., and including Grand Opera.

Other music [OTHER M]
- Musical styles not fitting into any of the other categories. Particularly used for specialist music of which Rhythm & Blues and Reggae are examples.

Weather [WEATHER]
- Weather reports and forecasts and Meteorological information.

Finance [FINANCE]
- Stock market reports, commerce, trading, etc.

Children's programmes [CHILDREN]
- For programmes targeted at a young audience, primarily for entertainment and interest, rather than where the objective is to educate.

Social Affairs [SOCIAL A]
- Programmes about people and things that influence them individually or in groups. Includes: sociology, history, geography, psychology and society.

Religion [RELIGION]
- Any aspect of beliefs and faiths, involving a God or Gods, the nature of existence and ethics.

Phone In [PHONE IN]
- Involving members of the public expressing their views either by phone or at a public forum.

Travel [TRAVEL]
- Features and programmes concerned with travel to near and far destinations, package tours, travel ideas and opportunities. Not for use for Announcements about problems, delays, or roadworks affecting immediate travel where TP/TA should be used.

Leisure [LEISURE]
- Programmes concerned with recreational activities in which the listener might participate. Examples include, Gardening, Fishing, Antique collecting, Cooking, Food & Wine etc.

Jazz Music [JAZZ]
- Polyphonic, syncopated music characterised by improvisation.

Country Music [COUNTRY]
- Songs which originate from, or follows the musical tradition of the American Southern States. Characterised by a straightforward melody and narrative story line.

RDS (Radio Data System) Broadcast Reception

National Music [NATION M]
- Current Popular Music of the Nation or Region in that country's language, as opposed to International 'Pop' which is usually US or U.K. inspired and in English.

Oldies Music [OLDIES]
- Music from the so-called "golden age" of popular music.

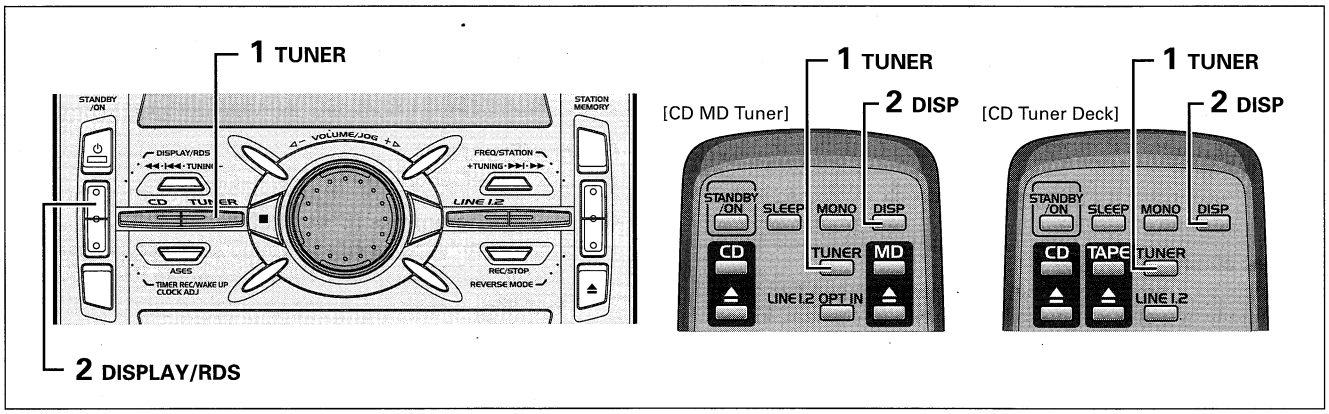
Folk Music [FOLK M]
- Music which has its roots in the musical culture of a particular nation, usually played on acoustic instruments. The narrative or story may be based on historical events or people.

Documentary [DOCUMENT]
- Programme concerned with factual matters, presented in an investigative style.

Alarm Test [TEST]
- Not to be used for searching - only used in a receiver for dynamic switching.

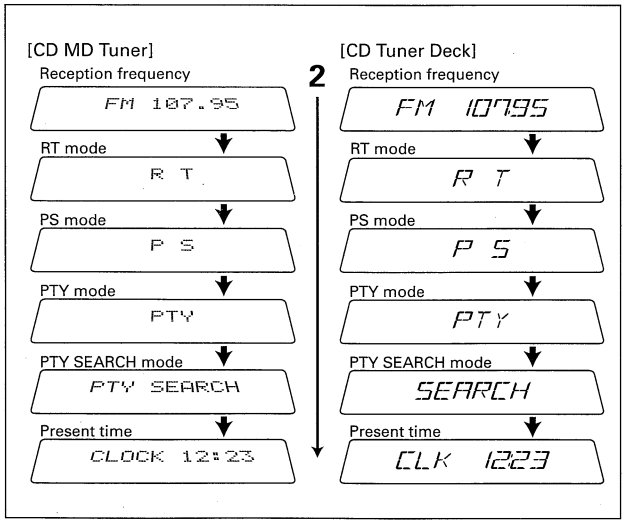
Alarm [ALARM !]
- Emergency announcement made under exceptional circumstances to give warning of events causing danger of a general nature. Not to be used for searching - only used in a receiver for dynamic switching.

NOTE:
These definitions can differ slightly between various language versions.

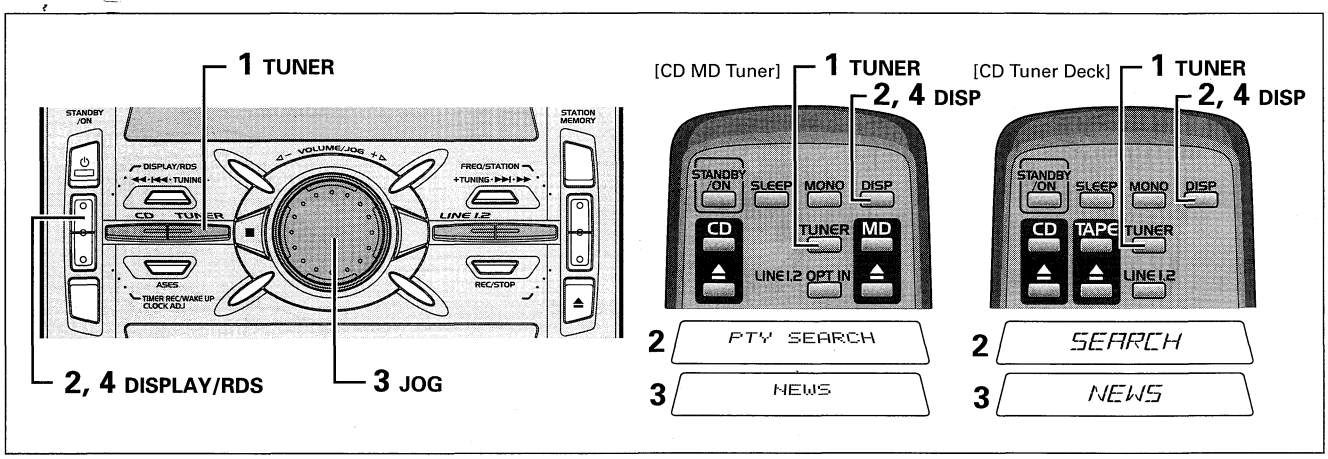


RDS selection and display

1. **Use the TUNER button to select "FM."**
2. **Press the DISPLAY/RDS (DISP) button to select one of the following: "RT," "PS," "PTY," or "PTY SEARCH."**



NOTES:
- *The RDS indicator will light in the RDS mode.*
- *If no RDS signal can be received, the "NO DATA" message will be displayed.*
- *If there is noise during the RT scroll display when in the RT mode, some characters may be temporarily displayed incorrectly.*
- *In the RT mode, when no RT data is transmitted, "NO RADIO TEXT DATA" is displayed.*
- *During RDS broadcast reception in the PTY mode, "NO TYPE" data may be displayed. In this case, it will automatically switch to PS mode after a few seconds.*
- *Depending on the broadcast station, numerous program station names (PS) may be transmitted in succession. In this case, when you switch to the RT mode, only some of the PS data will be displayed, so switch to the PS mode.*
- *When a station name has been recorded (P. 20), it will be displayed before PS data.*



Searching for a desired program by program type (Program Type Search)

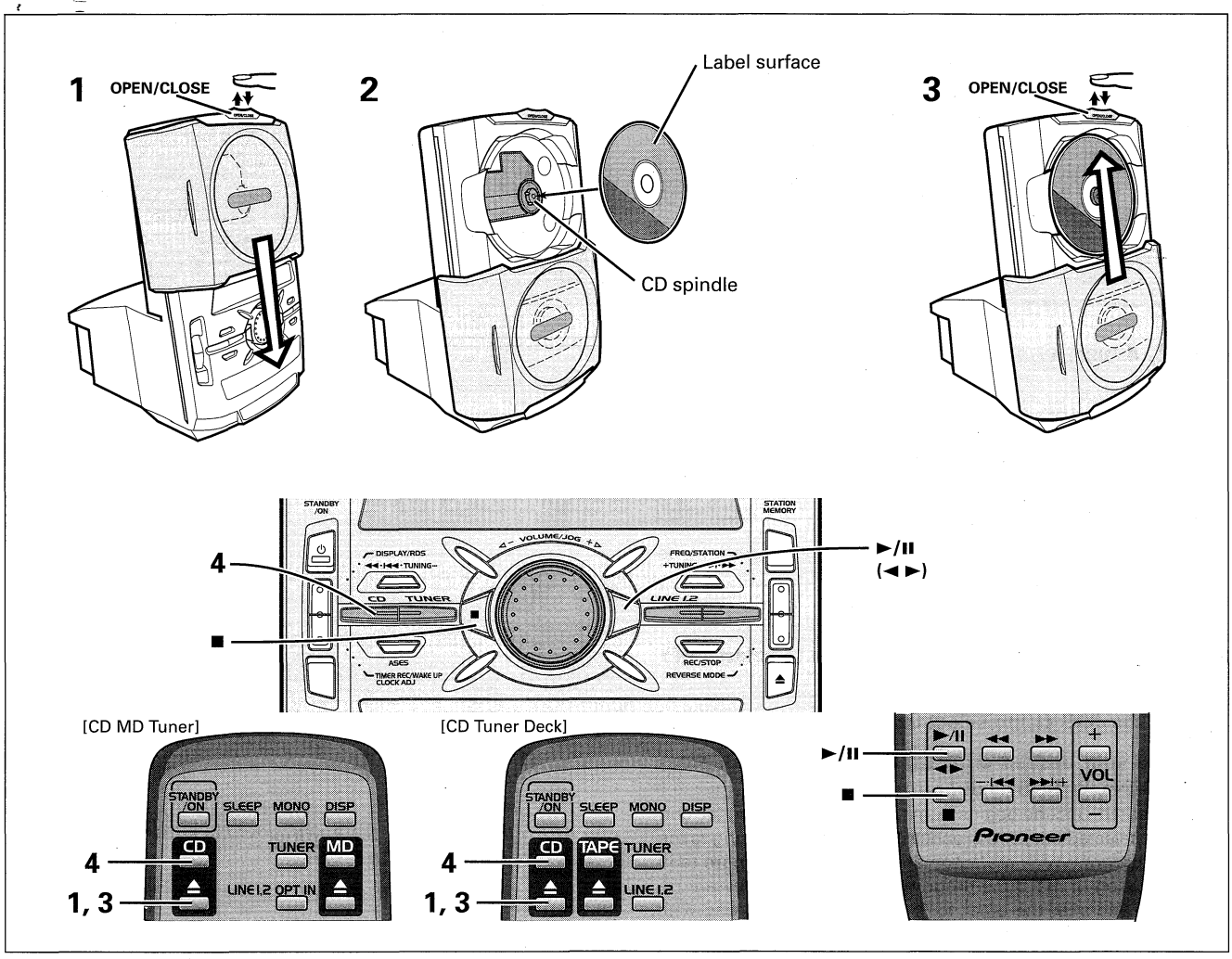
You can search for an FM broadcast of a desired program type (PTY).

1. **Select FM with the TUNER button.**
2. **Press the DISPLAY/RDS (DISP) button to select "PTY SEARCH" ("SEARCH").**
3. **Turn the JOG dial to select the desired program type.**
4. **When your desired program type is displayed, press the DISPLAY/RDS (DISP) button.**
   The search function begins from the station following the currently selected one, and broadcast stations conforming to the input program type are automatically received. If more than one station of the same program type is found, they are received one after the other for 5 seconds each, starting with any presets. When the station you want is received, press the DISPLAY/RDS (DISP) button. Search stops, and reception of that station continues.

NOTES:

- *When a broadcast of the selected program type cannot be found, search continues until the DISPLAY/RDS (DISP) button is pressed.*
- *When an AM frequency is recorded among the memorized station positions, that frequency will be skipped and the search will continue.*

Listening to a Compact Disc



To play a compact disc

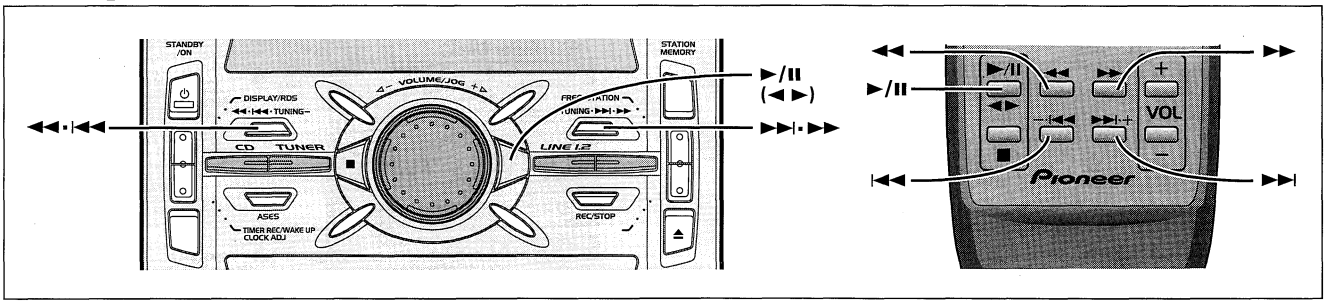
1. **Touch the OPEN/CLOSE touch sensor and release quickly, or press the CD ▲ button on the remote control unit to open the CD cover.**
2. **Put a disc on the CD spindle with its label surface facing up.**
3. **Touch the OPEN/CLOSE touch sensor or press the CD ▲ button on the remote control unit to close the CD cover.**
4. **Press the CD function button or CD play (►/II) button.**

NOTES:

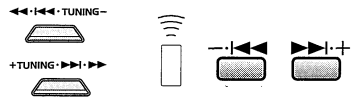
- *Do not obstruct the operation of the CD cover, since malfunctions may result.*
- *When using the CD Tuner Deck , the CD cover will not operate if the cassette tray is open.*
- *When using the CD MD Tuner, the CD cover will not operate if an MD is protruding from the MD insert slot.*
- *Playback will start from the first track.*
- *The player will stop automatically when all tracks have been played.*

■ To stop playback ■

Operation	Press this Button
Cancel playback	
Pause playback	
Resume playback from pause	



■ To play a specific track ■

Operation	Press this Button
To search for a track	 Press and release. ● If the button is pressed during the pause mode, playback will move to the selected track and remain paused there; to resume play, press the ►/II button.
Fast Forward / Fast Reverse	Hold depressed.

NOTES:

- *During fast forward/fast reverse, the sound will be attenuated, then return to its previous level when the operation ends.*
- *When loading 8 cm discs, do not use an 8 cm CD single adapter.*
- *Never attempt to load a 12 cm disc simultaneously with an 8 cm disc, since disc damage or other malfunctions may result. Always load only one disc at a time.*

Direct play - To play a particular track by specifying the track number

When the track No. is specified with the digit buttons, playback starts automatically from the beginning of the specified track.

To specify track No. from 1 to 10, simply press the corresponding digit buttons (1 – 10/0). To specify track No. 11 or above, use >10 .

Example : To enter track No. 16: >10 , 1 , 6
To enter track No. 30: >10 , 3 , 10/0

- When entering 11 or above, 10/0 functions as 0.
- When >10 is pressed, the digit button to be entered next should be pressed within 5 seconds.

To repeat playback (repeat play)

To repeatedly play the displayed track, press REPEAT on the remote control unit once. The RPT-ONE or REPEAT ONE indicator lights. The REPEAT button can be pressed in any playback mode.

To repeatedly play all tracks on the disc in normal playback mode or in the specified playback mode (Program playback or Random playback), press REPEAT twice. The RPT-ALL or REPEAT ALL indicator lights.

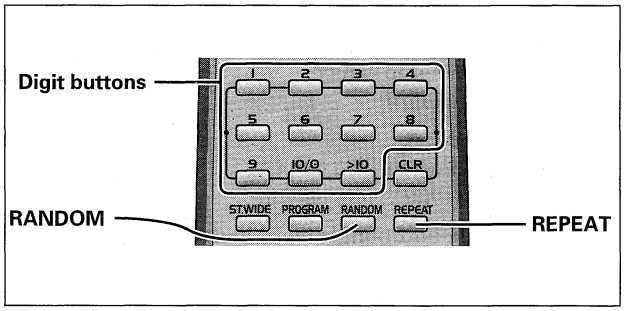
The repeat mode changes in the sequence shown.

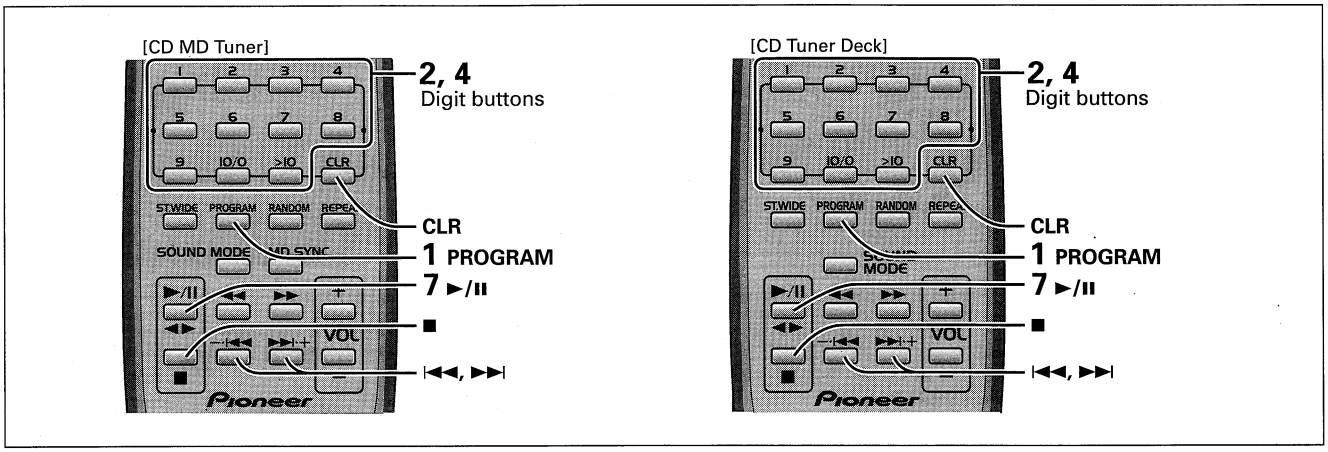
→ off ⟶ 1-track repeat ⟶ All-track repeat →

- The repeat mode will be canceled if the unit is set to power off (standby) mode, or if the CD cover is opened.

Random playback - To play all tracks in random order

Press the RANDOM button on the remote control unit. The RDM or RANDOM indicator lights and all tracks on the disc are played in random order. After all tracks are played, the player enters stop mode.





Programmed play - To program playback of tracks in a desired order

(This operation can be performed on the remote control unit.)

- Up to 24 steps can be programmed.

Example: To program tracks 7 and 12 respectively.
When the function selector is set to CD:

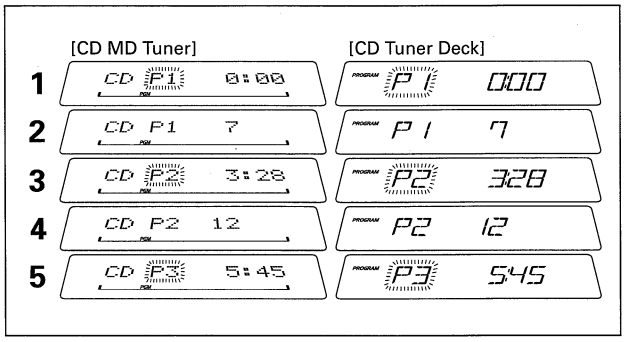
1. **Be sure that CD play is stopped, then press the PROGRAM button on the remote control unit.**
   P1 : Program step number
   0:00 : Total program playing time
2. **Press the desired number digit button (7).**
   P1 : Program step number
   7 : Track number
3. **Wait one second.**
   P2 : Next program step number
   3:28 : Total program playing time
4. **Press the desired number digit buttons (>10, 1, 2).**
   P2 : Program step number
   12 : Track number
5. **Wait one second.**
   P3 : Next program step number
   5:45 : Total program playing time
6. **To memorize additional tracks in the program, repeat steps 4-5.**

- If an attempt is made to record more than 24 steps in a program, the display will show "CD PGM FULL" or "PGM FULL".

■ If you enter the wrong track numbers:

Press the CLR button. Each time the button is pressed, one track will be cancelled from the program, beginning from the most recently programmed track and working backwards.

7. **Press the play/pause (►/II) button to begin playing the selected tracks in programmed order.**



■ To cancel the program, perform one of the following:

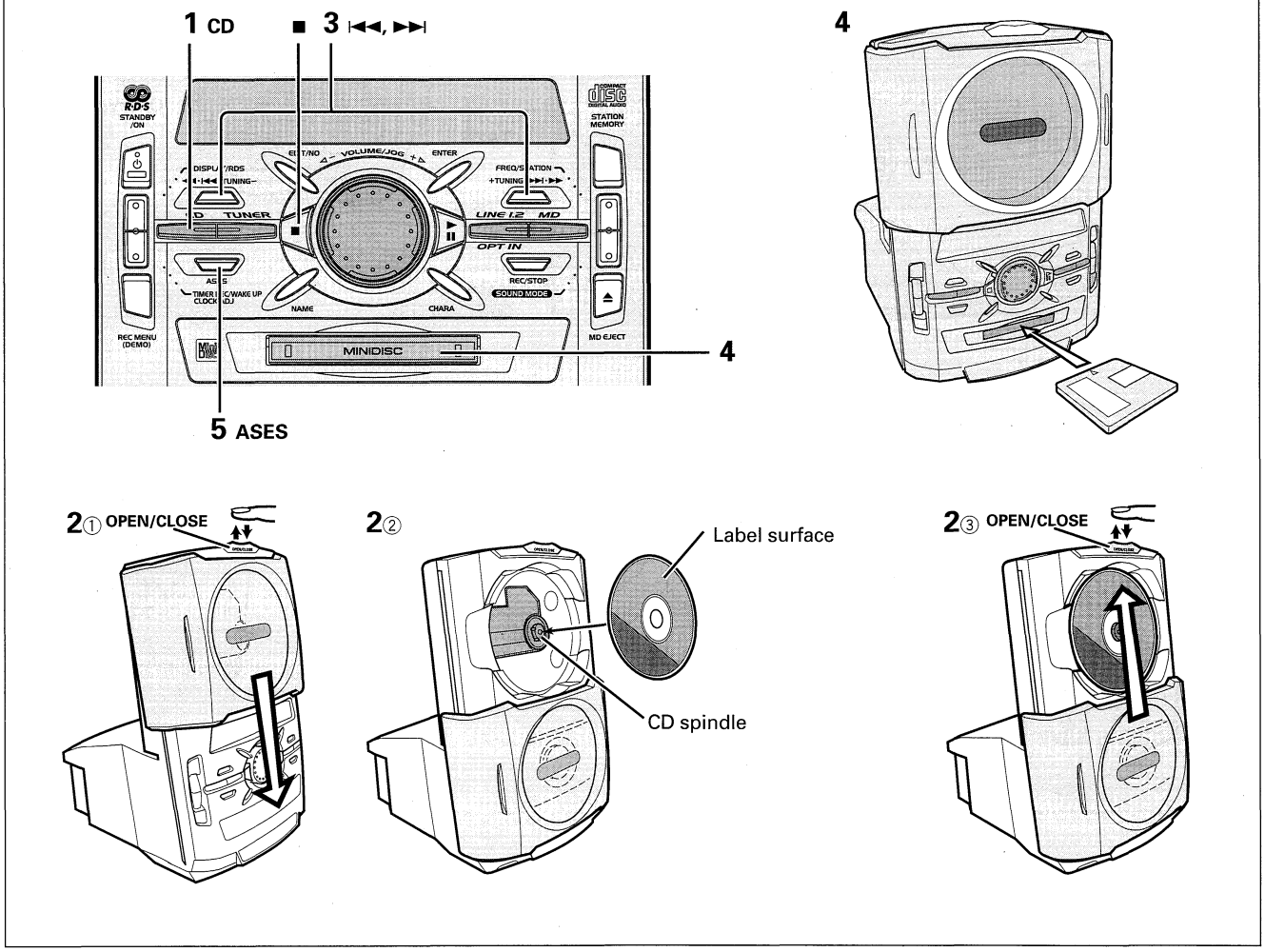
- When the CLR button is used to cancel the last-remaining program.
- During stop mode, press the stop (■) button (during the stop mode, the total playing time is displayed).
- Open the CD cover.
- Turn power off.

■ To confirm program contents

- During stop mode, press the I◄◄, ►►I buttons to display the programmed contents (the program step number and the track number), one step at a time.
- Press the stop button to return to the display of the total number of programmed tracks and the total playing time.

NOTE:

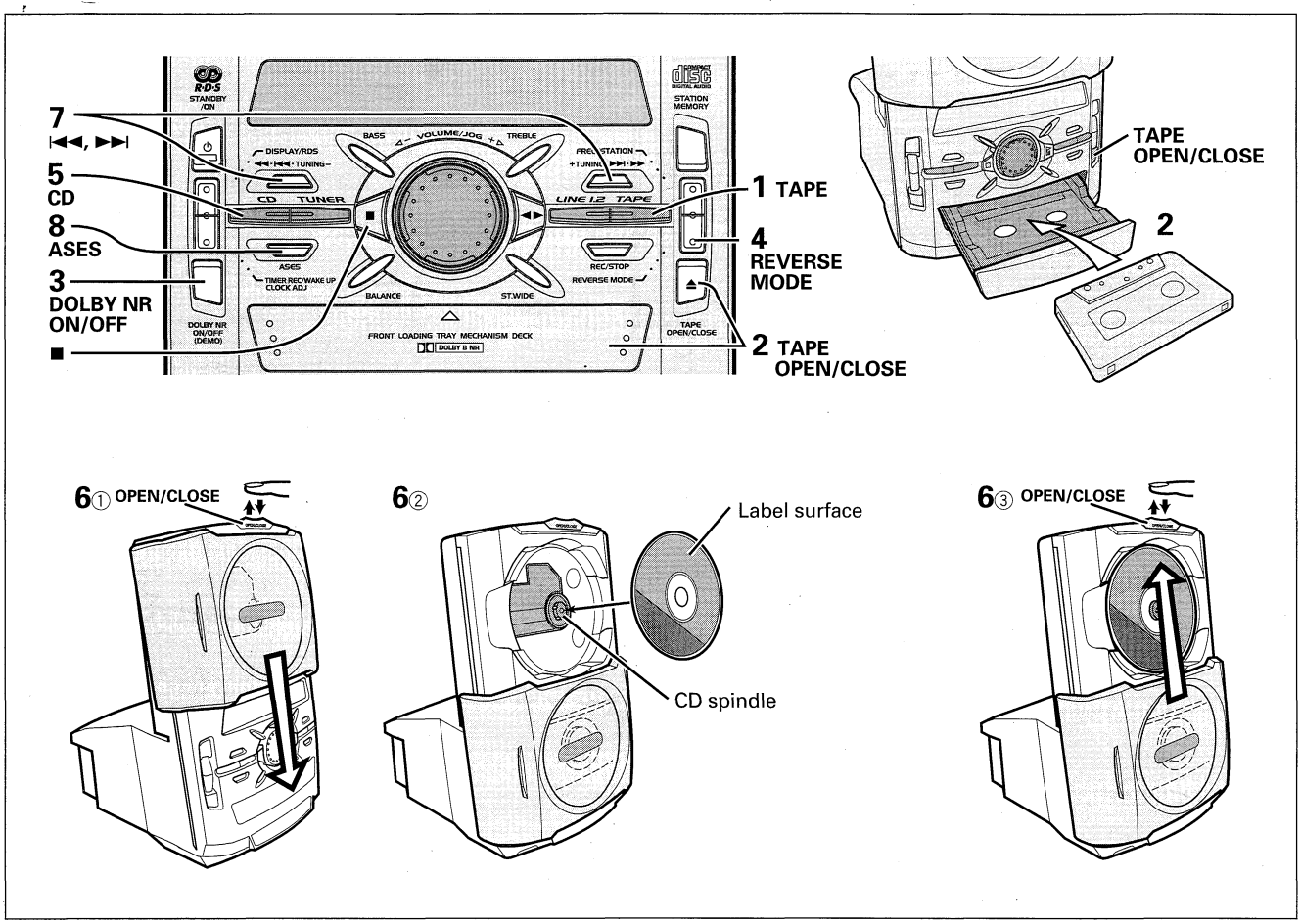
A pause cannot be programmed.



A.S.E.S. (Auto Synchro Editing System) (CD→MD) (CD MD Tuner only)

1. **Press CD button to select the CD function.**
2. **Load the CD which you wish to record. Label side facing up.**
3. **Use the ⏮ or ⏭ button to select the CD track you wish to record (1-track A.S.E.S.).**
   - When recording all tracks, do not perform this step. With the CD stopped, confirm that the display shows the total number of tracks. If the total number of tracks is not displayed, press the stop (■) button.
   - When this procedure is used to select a CD track, the One-Track A.S.E.S. function will be automatically selected.
4. **Insert a MiniDisc.**
5. **Press the ASES button.**
   - The CD will begin playback and the MiniDisc will simultaneously begin recording.
   - When CD play ends, recording will simultaneously end on the MiniDisc.
   - CDs and MDs cannot be removed during operation of the A.S.E.S. function. To remove a loaded CD or MD, press the stop (■) button and cancel the A.S.E.S. function before removing the disc.

■ **To stop recording, press the stop (■) button.**
- If the CD playback time is longer than the space available for recording on the MiniDisc, the CD will stop playback at the same time recording stops on the MiniDisc.
- If programmed playback is set on the CD player (P. 26), the programmed contents will be recorded in the A.S.E.S. mode. If the CD player's repeat function is turned ON (P. 25), repeat playback will be canceled.



A.S.E.S. (Auto Synchro Editing System) (CD→TAPE) (CD Tuner Deck only)

1. **Press the TAPE button to select the TAPE function.**
2. **Insert the cassette tape which you wish to record onto.**
3. **Press the DOLBY NR button to set the Dolby noise reduction function ON or OFF as desired.**
   Each time the button is pressed, the function turns ON and OFF alternately.
4. **Press the REVERSE MODE button to select the desired reverse mode.**
   : Recording stops after one side.
   , : Recording is started from side A (► direction), recording continues to side B (◄ direction).
5. **Press the CD button to select the CD function.**
6. **Load the CD from which you wish to record. Label side facing up.**
7. **Use the I◄◄, ►►I buttons to select the track you wish to record (1-track A.S.E.S.).**
   - When recording all tracks, do not perform this step. With the CD stopped, confirm that the display shows the total number of tracks. If the total number of tracks is not displayed, press the stop (■) button.
   - When this procedure is used to select a CD track, the One-Track A.S.E.S. function will be automatically selected.
8. **Press the ASES button.**
   - The unit enters the recording pause mode.
   - The disc will begin playback, and the cassette tape deck will simultaneously begin recording in the forward direction.
   - When the disc completes playback, the cassette tape will also stop.
   - CDs and cassette tapes cannot be removed during A.S.E.S. operation. To remove a loaded CD or cassette tape, press the stop (■) button and cancel the A.S.E.S. function before removing the disc or cassette.

■ To manually stop recording

Press the stop (■) button.

NOTES:

- *When the tape cassette comes to the end of side A and recording switches to side B, if CD playback is in the middle of a track, that entire track will be recorded anew on side B.*
- *If programmed playback is set on the CD player (P. 26), the programmed contents will be recorded in the A.S.E.S. mode. If the CD player's repeat function is turned ON (P. 25), repeat playback will be canceled.*

To change display modes

When the CD function has been selected:

- Use the DISPLAY/RDS (DISP) button.
  Each time the button is pressed the function changes in the following sequence:

When CD is stopped

1 Total tracks, total playing time ↔ 2 Current time

Display during CD playback

1 Elapsed playing time

2 Remaining playing time of current track

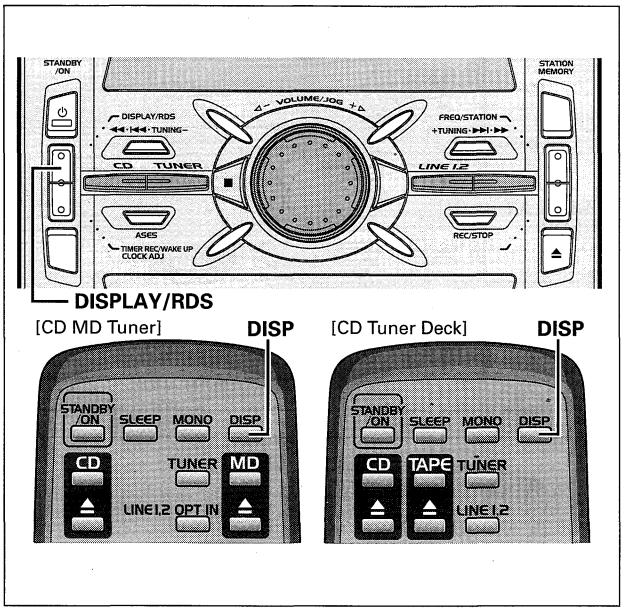
3 Total remaining playing time

4 Current time

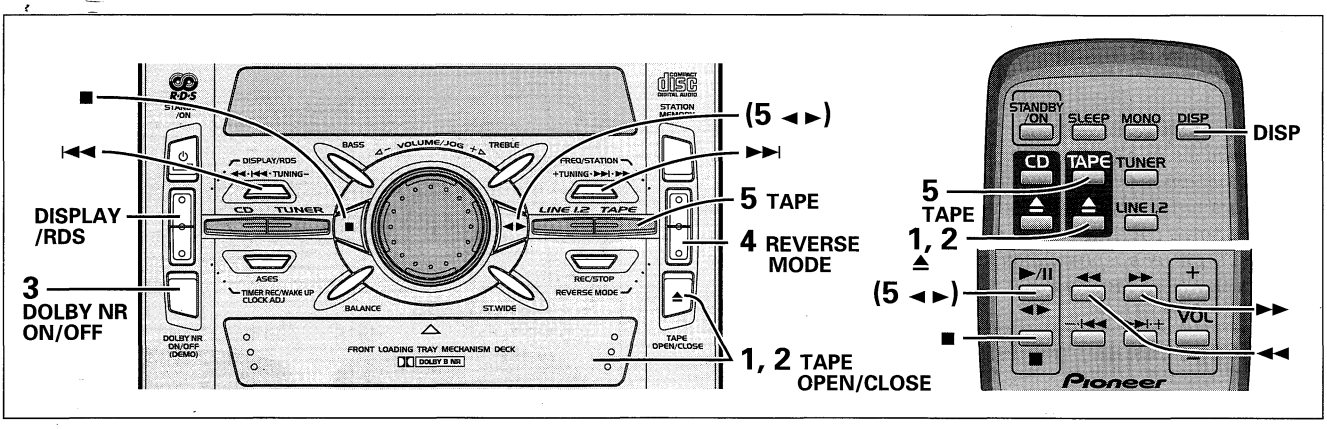
Display when recording from CD to MD:
- ☐ Name of MD track (scrolling display)
- ☐ MD recording track number and recording time
- ☐ MD recording track number and remaining recording time

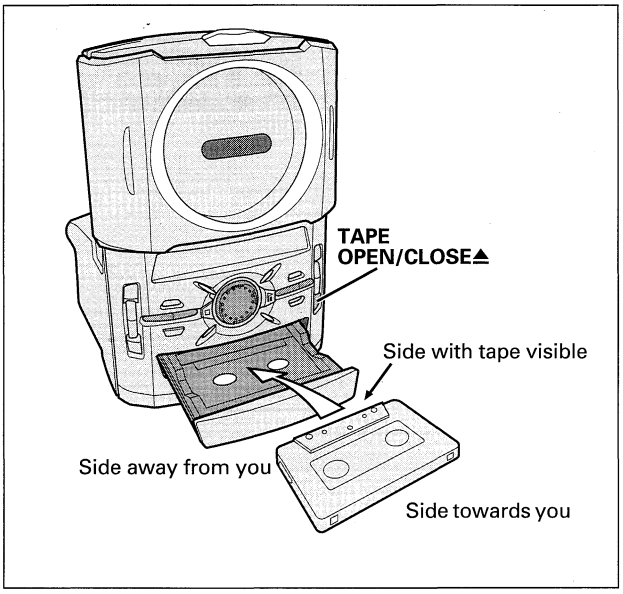
Display when recording from CD to tape:
- ☐ Tape counter

- During CD to MD or CD to tape recording, the respective data shown are added between display steps 3 and 4 of the CD playback data display.
- During random play, display step 3 is not shown.



Playing a Cassette Tape (CD Tuner Deck only)





Basic operations

1. **Press the TAPE OPEN/CLOSE button (▲) and load a recorded tape.**
   Be sure to insert the cassette in the direction shown. Inserting the cassette backwards will cause a malfunction or damage.
2. **Press the TAPE OPEN/CLOSE button to close the tray.**
3. **Set the Dolby NR to the same position used for recording.**
   Tapes recorded using Dolby noise reduction should always be played back with the noise reduction system turned ON. The NR system is turned ON and OFF alternately with each press of the button as shown.

   ON ↔ OFF
4. **Press the REVERSE MODE button to select the reverse mode.**

: Single side play (playback stops after one side)
: Playback stops after completion of playback in the ◄ direction.
: Continuous repeat playback of both sides, up to a maximum of 16 tape sides, after which the cassette deck stops automatically.

5. **Press the TAPE button (or, if function has already been set to TAPE, you may also press one of the Play/Direction (◄ ►) buttons).**
- The direction of tape travel will be displayed on the display; select the desired direction of travel by pressing the play/direction (◄ ►) button.
- Each time the play/direction (◄ ►) button is pressed, the direction of travel changes alternately between side A and side B as shown below:

  ► (side A) ↔ ◄ (side B)
- When loading the cassette tape in the cassette tray, if the cassette is set with side A facing UP, the "forward" direction (►) will correspond to side A and the "reverse" direction (◄) will correspond to side B.

Operation	Button to Press
To stop playback	
To fast forward or rewind the tape ● Press when the tape is stopped.	◄◄·|◄◄·TUNING– +TUNING·►►|·►►

To reset the tape counter to 0000

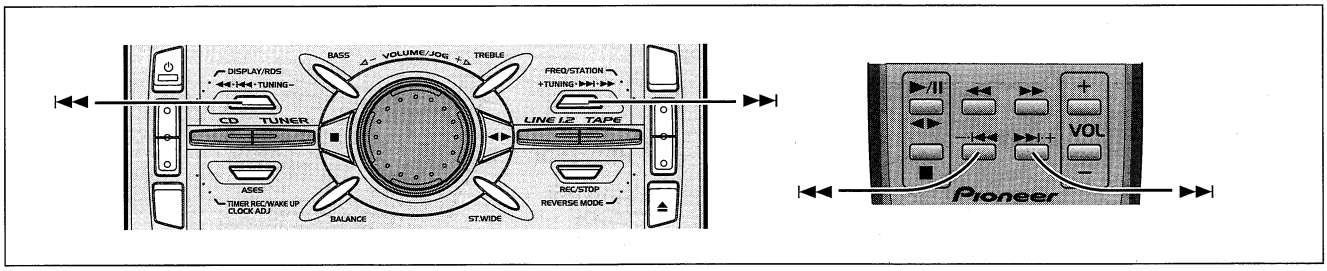
1. **Set the unit to tape function mode.**
2. **Press the stop (■) button in the stop mode.**
- The tape counter can also be reset by opening the cassette tray.

To change display modes

Press the DISPLAY/RDS (DISP) button.

- Each time the button is pressed, the mode changes in the sequence shown:

  1 Tape counter ↔ 2 Current time



To search for a particular track (Music Search)

While the cassette deck is in the playback mode, press either the ⏮ or ⏭ button.

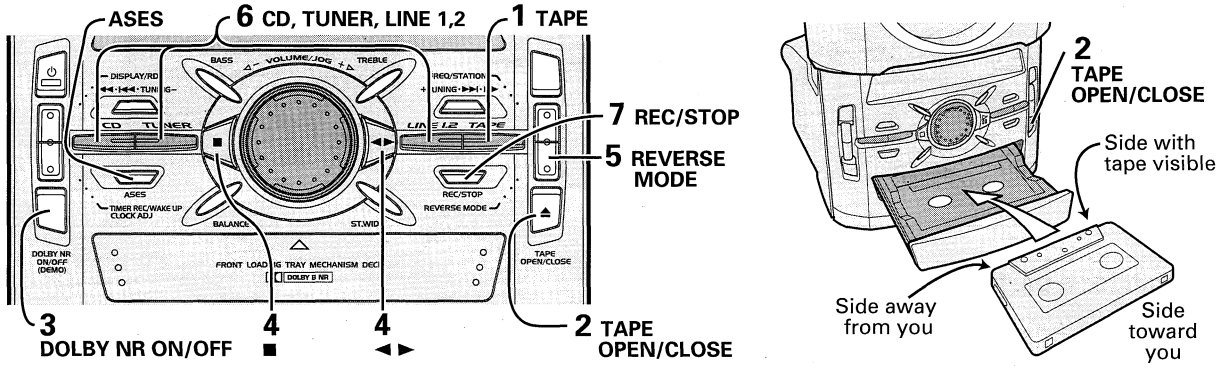
- When the remote control unit is used, music search can also be performed from the stop mode.
- Pressing ⏮ will return the tape to the beginning of the currently playing track.
- Pressing ⏭ will advance the tape to the beginning of the next track.

NOTE:

The music search function may not work correctly when the following tapes are being played back.

- *Tapes that do not have unrecorded portions of 4 seconds or more between songs.*
- *Tapes containing music with long intervals of low sound such as classical music.*
- *Tapes with interruption of sound, such as meetings and language study tapes.*
- *Tapes containing noise in the unrecorded portions.*

Recording on a Cassette Tape (CD Tuner Deck only)



Basic operations

1. **Press the TAPE button.**
2. **Insert a cassette tape.**
   - Forward the tape past its leader section to expose the tape's magnetic surface (☞ P. 12).
   - Recording cannot be performed if the cassette's erasure-prevention tabs have been broken.
   - Use a Type I (normal) or Type II (High/CrO_2) tape. Type IV (Metal) tapes cannot be used.
3. **Press the DOLBY NR button to set the Dolby noise reduction function to ON or OFF.**
   The noise reduction system is turned ON and OFF alternately with each press of the button.
4. **Press the play/direction (◄ ►) button corresponding to the direction you wish to record.**
   The indicator in the display window shows the direction.
   Press the stop (■) button after selecting the recording direction.
   - If the reverse direction (◄) is selected, recording will stop after completion of the recording of the cassette tape's reverse side.
5. **Press the REVERSE MODE button to select the reverse mode.**

   : Recording stops after one side.
   , : If recording is started from side A (► direction), recording continues to side B (◄ direction).
   If recording is started from side B (◄ direction), recording stops after completion of recording on side B only.
6. **Press one of the function buttons (TUNER/LINE 1, 2/CD) to select the source function you wish to record.**
   When recording a radio broadcast from the tuner, tune in the desired station.
   - Do not set the function to TAPE (no recording is possible).
7. **Press the REC/STOP button.**
   Recording begins, and the REC indicator lights.
8. **Begin playing the source component.**

Stop recording:	REC/STOP

NOTES:
- *The function setting cannot be changed during recording.*
- *The setting of the tone control (☞P. 49) has no effect on the recording.*
- *The recording level is automatically set by the unit's ALC (Auto Level Control) function.*

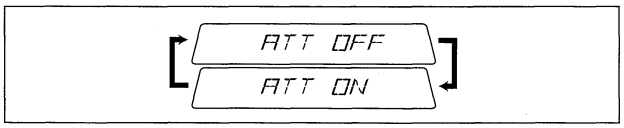
[Recording from a Source Connected to LINE 1 Connectors]

Depending on the recorded contents, some CDs and MDs produce high signal levels which may produce unpleasant distortion if recorded on the built-in cassette deck. In such cases, the following procedures can be used to reduce the signal level of the LINE 1 recording source and lower the distortion level.

■ **To switch the LINE 1 input level:**

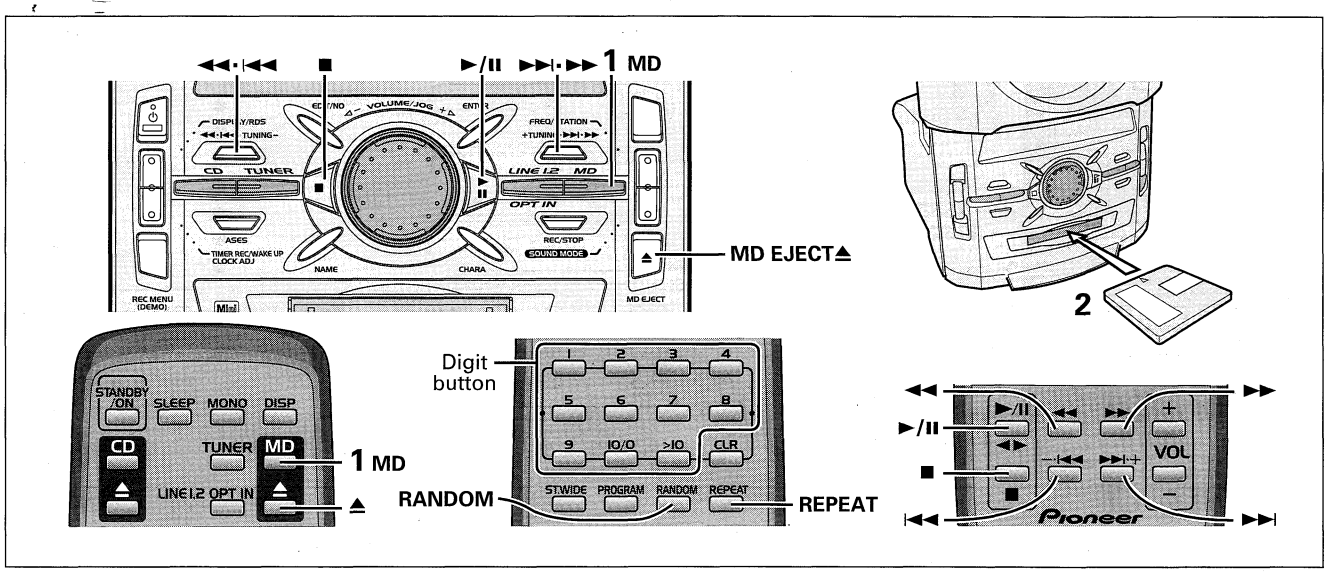
1. **Turn off the power.**
2. **Hold the ASES button depressed for 3 or more seconds.**

- The indicator "ATT ON" will appear in the display window, indicating that the input level has been reduced.
- When this setting is used, "LINE 1*" will appear when the LINE 1 component is selected for input.
- Repeat the above procedure to display the "ATT OFF" indicator and return the setting to its initial condition.



When using the A.S.E.S. (Auto Synchro Editing System) to record the contents of a CD, see the section "A.S.E.S. (CD→Tape)" on page 28.

Playing a MiniDisc (CD MD Tuner Only)



To play a MiniDisc from track 1

1. **Press the MD button.**
2. **Insert a MiniDisc.**
   Insert the disc in the direction of the arrow, with the label side up.
   The disc will be pulled into the player automatically, and playback will begin from track 1.
   - When using a recordable MD, playback will begin automatically if the erasure-prevention tab on the disc side is open.
   - Playback always begins automatically when a playback-only MD is inserted.
3. **Begin playback.**
   When using a playback-only MD, or an MD on which track titles have been recorded (☞ P. 44, 45), the track titles will scroll in the display.
   - Playback will not begin (no sound will be produced) until the unit reads the TOC (Table of Contents) information at the beginning of the disc.
   - When a MiniDisc has already been loaded and the unit is in stop mode, press the MD button to begin playback.
   - When a MiniDisc has already been loaded, the MD function has already been selected, and the unit is in stop mode, press the Play/Pause (►/II) button to begin playback.

To stop play:	■
To pause play:	►/II
To resume play from pause mode:	►/II

Track Search: ● Press once and release. ● When these buttons are pressed during stop mode, resume play by pressing the play/pause button (►/II).	◄◄·|◄◄ TUNING– +TUNING·►►|·►► –·|◄◄ ►►|·+
Fast forward or fast reverse: ● Hold depressed as long as desired.	◄◄·|◄◄ TUNING– +TUNING·►►|·►► ◄◄ ►►

Direct play - To play a particular track by specifying the track number

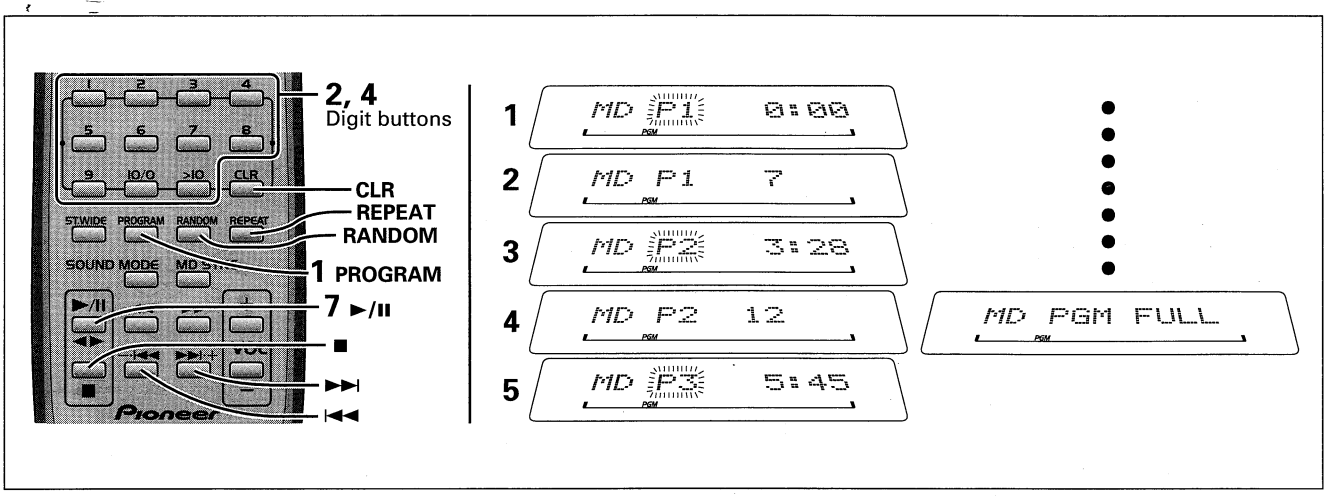
When the track No. is specified with the digit buttons, playback starts automatically from the beginning of the specified track.

To specify track No. from 1 to 10, simply press the corresponding digit buttons (1 – 10/0). To specify track No. 11 or above, use >10. To select numbers 100 and above, press >10 twice.

Example : To enter track No. 16: >10 , 1 , 6
To enter track No. 30: >10 , 3 , 10/0
To enter track No. 105: >10 , >10 , 1 , 10/0 , 5

- When entering 11 or above, 10/0 functions as 0.
- When >10 is pressed, the digit button to be next entered should be pressed within 5 seconds.

Playing a MiniDisc (CD MD Tuner Only)



To repeat playback (repeat play)

To repeatedly play the displayed track, press REPEAT on the remote control unit once. The RPT-ONE indicator lights. The REPEAT button can be pressed in any playback mode.
To repeatedly play all tracks on the disc in normal playback mode or in the specified playback mode (Program playback or Random playback), press REPEAT twice. The RPT-ALL indicator lights.

The repeat mode changes in the sequence shown.

→ off → 1-track repeat → All-track repeat ┐

- The repeat mode can be canceled either by switching the power off (standby), or by pressing the MD EJECT button to remove an MD.

Random playback - To play all tracks in random order

Press the RANDOM button on the remote control unit. The RDM indicator lights and all tracks on the disc are played in random order. After all tracks are played, the player enters stop mode.

Programmed play - To program playback of tracks in a desired order

(This operation can be performed on the remote control unit.)
- Up to 24 steps can be programmed.

Example: To program tracks 7 and 12 respectively.
When the function selector is set to MD:

1. **Be sure that MD play is stopped, then press the PROGRAM button on the remote control unit.**
   P1 : Program step number
   0:00 : Total program playing time
2. **Press the desired number digit button (7)**
   P1 : Program step number
   7 : Track number
3. **Wait one second.**
   P2 : Next program step number
   3:28 : Total program playing time
4. **Press the desired number digit buttons (>10, 1, 2).**
   P2 : Program step number
   12 : Track number
5. **Wait one second.**
   P3 : Next program step number
   5:45 : Total program playing time
6. **To program other tracks, repeat steps 4 and 5.**
   - If an attempt is made to program more than 24 tracks, the display will indicate "MD PGM FULL".

■ If you input the wrong track number:

Press the CLR button. Each time the button is pressed, the most recently programmed track will be erased.

7. **Press the play/pause (►/II) button.**
   Play will begin in the programmed order.

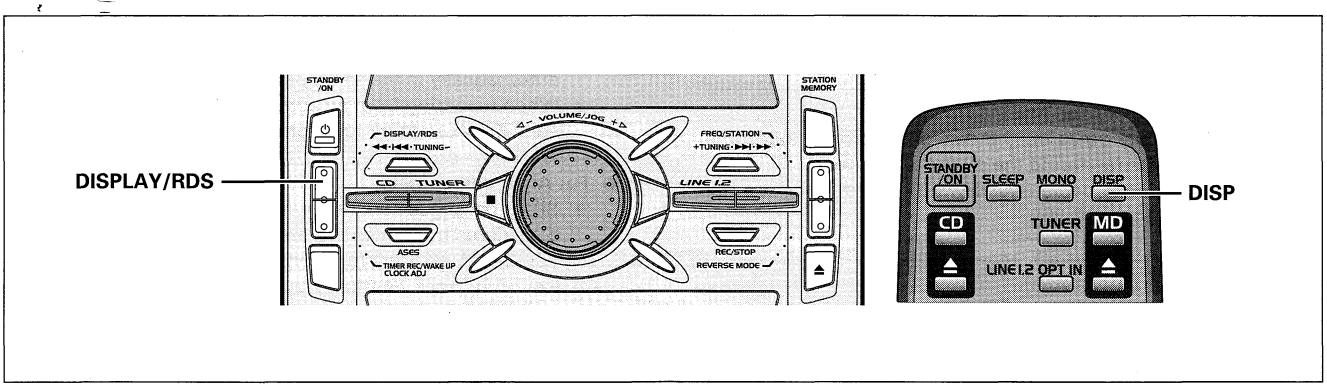
NOTE:
Pauses cannot be included in a program.

■ To cancel programmed play:

- During playback, press the stop (■) button twice.
- During stop mode (when the display shows the total number of programmed tracks / total programmed playing time), press the stop (■) button one time.
- Press the MD EJECT button (⏏) to remove the disc.
- Turn power OFF.

■ To confirm the programmed contents:

- During stop mode, press the I◄◄ or ►►I button; each time the button is pressed, the programmed contents (program step number and track number) will be displayed in order.
- When the stop (■) button is pressed, the total number of programmed tracks and the total playing time are displayed.



To change display modes

The display mode can be switched by pressing the DISPLAY/RDS (DISP) button.

■ **Press the DISPLAY/RDS (DISP) button.**

Display during playback

① Scrolling display of track name
⬇
② Currently playing track number and elapsed playing time
⬇
③ Currently playing track number and remaining playing time (track)
⬇
④ Remaining playing time until the end of playback
⬇
⑤ Current time.
⬇
①

If no name has been recorded for tracks or disc, the scrolling display of track and disc names (①) during the playback and stop modes will appear as "NO NAME" for three seconds, after which the display will switch to ②.

Display during stop mode

① Scrolling display of disc name
⬇
② Total tracks and total playing time
⬇
③ Remaining available recording time (only when using recordable discs)
⬇
④ Current time.
⬇
①

Display during recording or recording-pause

① Current function display
⬇
② Scrolling display of track name
⬇
③ Track number being recorded and elapsed recording time
⬇
④ Track number being recorded and remaining recording time
⬇
⑤ Current time.
⬇
①

Important: Read Before Recording on MiniDiscs (CD MD Tuner only)

Difference between MiniDisc recording and tape recording

- MiniDiscs record only on one side.
- Open (recordable) areas on the disc are searched automatically by the recorder during the recording process.
- The remaining recordable time can be confirmed before beginning recording (☞ P. 35).

TOC (Table of Contents)

When recording on a MiniDisc, information regarding the track number and its location on the disc are recorded in the TOC (table of contents) along the innermost tracks of the disc. This TOC is used during playback and editing.

Digital recording

This unit's digital sampling frequency during recording is 44.1 kHz. When recording from a component (BS/CS tuner, DVD, DAT, etc.) that has a sampling frequency of 32 or 48 kHz, however, the unit will automatically switch to that frequency for digital recording. Also, digital recording is not possible when recording from a DVD or other component designed to prevent digital copying, even if the sampling frequency is converted. Finally, sampling frequencies of 96 kHz cannot be converted when using this unit. In these cases, switch to analog recording.

Track numbers

Track numbers are assigned automatically during recording. Each time additional recording is performed, track numbers are automatically incremented.

■ **For Digital Recording:**
- When recording from a CD, a new track number is assigned automatically in the same place as the CD's track number.
- When recording from an auxiliary digital component (DAT, etc.), the Auto Mark function operates the same as during analog recording.

■ **For Analog Recording:**
- Silent passages continuing for more than 1.5 seconds are considered track intervals, and used to assign the next track number (Auto Mark function).
  However, track number positions may not always be assigned properly, due to noise or other conditions of the recorded contents.

Setting the recording level

- It is not necessary to set the recording level during digital or analog recording.

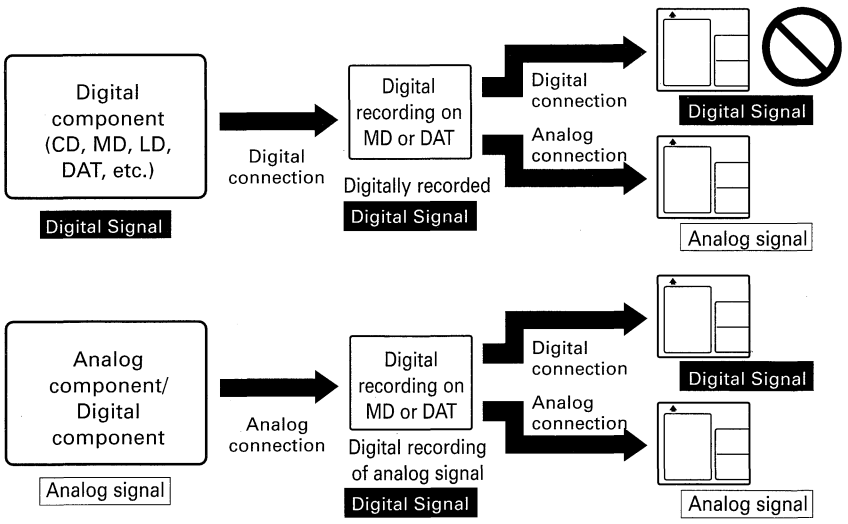
In event of power interruption during recording & editing

When performing recording onto a new, unrecorded Mini Disc, if the power cord is disconnected or other power interruption occurs, all contents of the recording at that time will disappear. If the power interruption occurs when performing additional recording to a Mini Disc which already contains previously recorded material, the newly added material will disappear.
If the power cord is disconnected or a power failure occurs after editing, the edited contents will be erased and the condition will return to its pre-edited state.

NOTE:
If you must disconnect the power cord following the completion of recording, be sure to first remove the disc from the recorder, since this will ensure that the recorded contents are written to the TOC area (TOC write).

A note regarding digital copying

Digital copying of the contents of a CD via digital input to another MD or DAT cannot be performed. This restriction is implemented by the SCMS (Serial Copy Management System) in order to prevent unauthorized commercial copying of copyrighted material.



Copying is not possible. A digitally recorded MD or DAT cannot be recorded on a subsequent disc (MD) via digital signal.

Recording is possible.

Recording is possible.

Recording is possible.

NOTES:

Recording is not possible under the following conditions:

- *When using a playback-only MD (commercially available pre-recorded MiniDiscs).*
- *When your MiniDisc is already full, and has no more remaining recording time.*
- *When the display "TOC FULL"appears.*
- *When an error occurs in the TOC.*

Take care not to disconnect the power cord, interrupt power, or subject the recorder to external impact while the TOC is being recorded (while "TOC WRITING" indicator flashes). If care is not taken, the TOC may be recorded incorrectly, making it impossible to play back the disc correctly.

System restrictions involving MiniDiscs

The MiniDisc recording format differs from previous recording formats on cassette tapes and DAT. As a result, the following kinds of symptoms may appear, depending on the kind of recording or editing being performed. These are restrictions inherent in the system itself, and are not malfunctions.

Symptom	System Restriction
"TOC FULL" is displayed, even though the MD has remaining recording time available.	● The MD's TOC area records the disc divisions available for recording. When a disc is subjected to repeated recording and erasing, or repeated editing, the number of tracks recorded in the TOC may eventually reach the system limit of 255, even though not that many tracks are actually recorded on the disc. When the TOC's system limit is reached, no more recording can be performed on the disc, even though space may be physically available. (In this case, the TOC can be restored to its initial status by using the all-track erase function to delete all tracks on the disc).
"DISC FULL" is displayed, even though the MD has remaining recording time available.	● If a disc is scratched or has other surface damage, that portion of the disc will be automatically marked and locked out, reducing the available recording time by that amount.
Even though several very short tracks are erased, the available recording time does not increase.	● When the remaining recording time is displayed, tracks with less than twelve seconds of recording time are sometimes not counted as tracks.
The total of the time actually recorded on the MD and the remaining recording time does not equal the disc's maximum recording time.	● Normally, the smallest unit of the disc counted is a single "cluster" (about 2 seconds of recording time). As a result, even when a track includes a fraction of a cluster, a whole cluster must be counted in the recording time. As a result, the remaining time actually available for recording may be less than that shown in the time-remaining display. Also, if a disc is scratched or has other surface damage, that portion of the disc will be automatically marked and locked out, reducing the available recording time by that amount. (In this case, the DEFECT indicator will appear in the display during recording, and the track number will be incremented automatically.)
When editing, it is sometimes impossible to link two tracks.	● When an MD has been subjected to repeated recording and editing, it may become impossible to use the "combine" function. Also, tracks recorded from digital inputs (CDs, other MDs, etc.) cannot be linked to tracks recorded from analog sources.
When performing fast-forward or fast-reverse through recorded tracks, the sound is sometimes interrupted.	● When an MD has been subjected to repeated recording and editing, the sound may be interrupted during use of the fast-forward or fast-reverse functions.

Important : Read Before Recording on MiniDiscs (CD MD Tuner only)

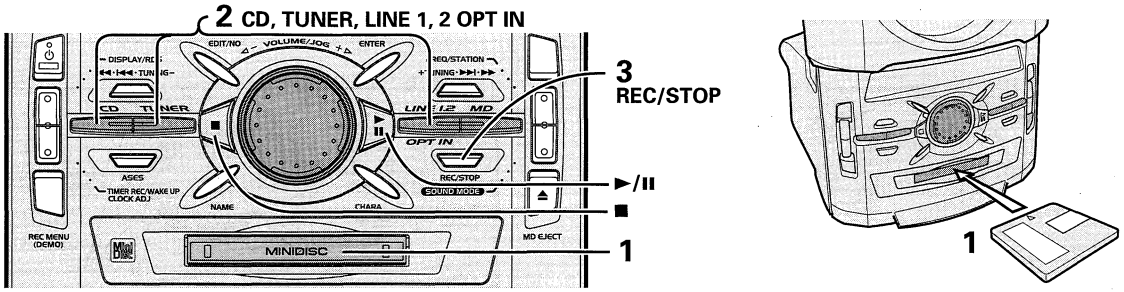
Error messages

Message	Meaning	Remedy
NO DISC	● No disc is loaded ● MD data can't be read	● Load a disc ● Try inserting the disc again
DISC ER ✻	● Disc is scratched ● TOC isn't recorded on the disc or data is corrupted	● Try inserting the disc again ● Replace the disc
?DISC	● Data is corrupted; disc is non-standard	● Replace the disc
DISC FULL	● No more space to record on the disc	● Replace with a new disc
BLANK DISC	● Nothing is recorded on the disc (no disc name is recorded)	● To playback, replace with a prerecorded disc.
PlaybackMD	● Disc is a playback-only disc; no recording or editing is possible.	● If you wish to record, replace with a recordable disc.
PROTECTED	● The disc's erasure-prevention tab is set to prevent recording.	● Set the erasure-prevention tab to allow recording.
TOC FULL	● No more room to record track numbers or character data (disc or track names)	● Replace with another disc
CAN'T REC	● Disc can't be recorded due to external impact or surface damage	● Try recording again, or replace the disc
TEMP OVER	● Excessive temperature	● Turn off the power and allow the unit to cool
CAN'T EDIT	● Editing not possible	● Change the track's ending position and attempt editing again
NAME FULL	● Insufficient space to record disc name/track name.	● Shorten the disc or track name
DEFECT	● Disc has scratch or other surface damage, resulting in interrupted sound	● Replace the disc
MECH ER ✻	● Mechanical error in MD	● Turn off the power and press the eject button (⏏).
CAN'T COPY	● Cannot copy from copy-protected sources	● Change to an ordinary source (normal CD, etc.) ● Change to analog recording
NOT AUDIO	● The source contains non-audio data	● Select another track ● Replace the disc
UTOC ER ✻	● TOC data cannot be recorded properly due to extermal impact or disc damage	● Turn off power for a moment, then try recording again. (Take care not to subject the disc to impacts during recording.)
TOC ERR ✻	● Recorded TOC data does not match MD standards; cannot be read.	● Replace the disc ● Perform the all-track erase function, then try recording again.
Din UNLOCK	● Signal corruption during digital input	● Check the digital input connector for proper connection
SIO ERROR	● Temporary fault occurring within the main unit.	● Turn off power, then turn on again.

(Where the ✻ indicates a numeral or code)

[Also see the Troubleshooting section, (☞ P. 53,54)]

Recording on MiniDiscs (CD MD Tuner only)



Manual recording

1. **Insert MiniDisc.**

   NOTE:
   Recording is not possible on a disc when its erasure-prevention tab is open.

2. **Select the desired input source function [CD/TUNER/LINE 1, 2 (OPT DIGITAL/LINE1/LINE2)].**
   When recording a radio broadcast, tune in the desired station.
   - Do not set the function to MD (no recording is possible).
   - If the function selected is "CD", playback will begin on that component automatically; press the corresponding stop (■) button to stop playback.

3. **Press the REC/STOP button.**

4. **Start playback on the desired source component.**

■ To stop recording, press the REC/STOP button.

- The recording level is set automatically.

NOTE:
The function selector cannot be changed while recording is in progress.

- A single MD can record a maximum of 255 tracks, although the total number actually usable may decrease if frequent recording, erasing, and re-editing have been performed. In this case, erasing the entire contents of the disc will restore the disc to its original capacity. (☞ P. 47)

[Recording from a Source Connected to LINE 1 Connectors]

Depending on the recorded contents, some CDs and MDs produce high signal levels which may produce unpleasant distortion if recorded on the built-in MD recorder. In such cases, the following procedures can be used to reduce the signal level of the LINE 1 recording source and lower the distortion level.

■ To switch the LINE 1 input level:

1. **Turn off the power.**

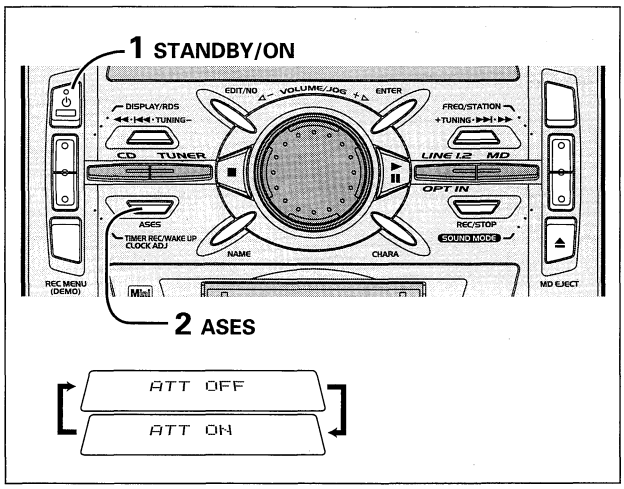
2. **Hold the ASES button depressed for 3 or more seconds.**

- The indicator "ATT ON" will appear in the display window, indicating that the input level has been reduced.
- When this setting is used, "LINE 1*" will appear when the LINE 1 component is selected for input.
- Repeat the above procedure to display the "ATT OFF" indicator and return the setting to its initial condition.

To make digital recording from an external digital component

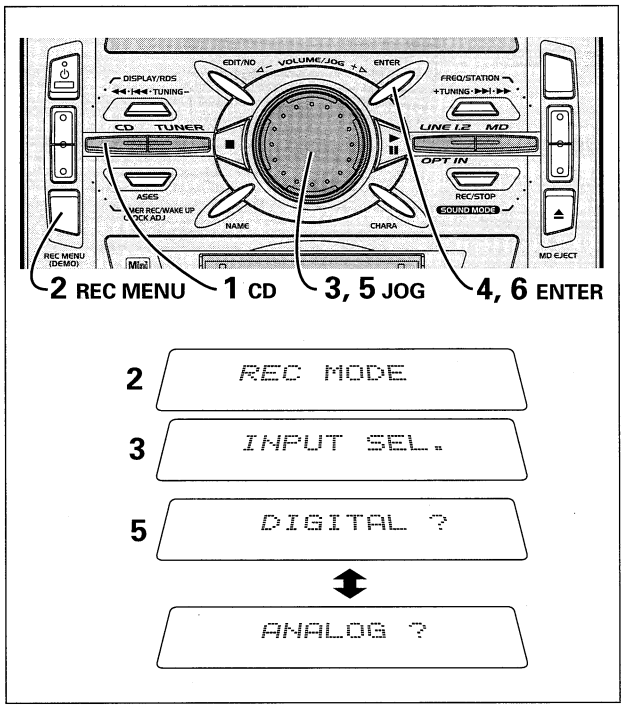
① Use an optical fiber cable to connect the unit's OPT IN connector to the digital (optical) output connector of the external digital component.
② Use the procedures for manual recording to perform the recording. Set function to OPT DIGITAL.

When using the A.S.E.S. (Auto Synchro Editing System) to record the contents of a CD, see the section "A.S.E.S. (CD→Mini Disc)" on page 27.



Recording on MiniDiscs (CD MD Tuner only)

Making an analog recording from a CD

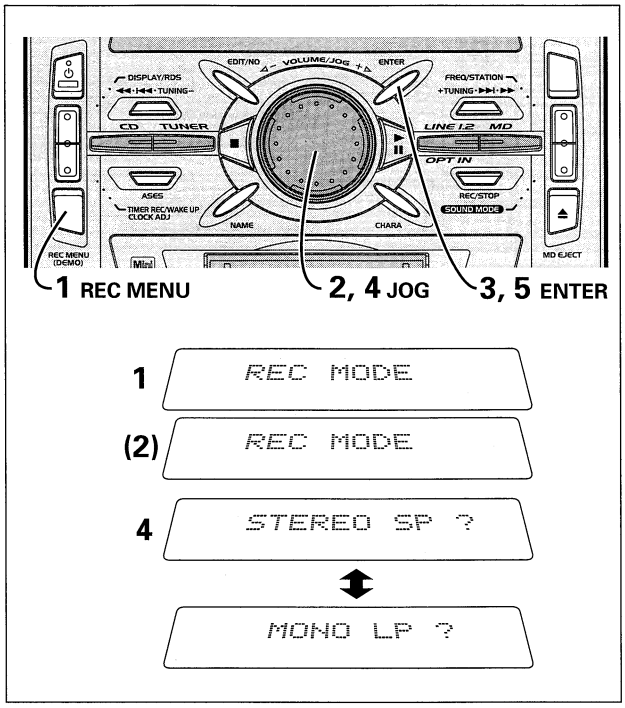


- Switch between Auto Digital Recording mode and Analog Recording mode.
- This function is effective when making an analog recording of a digitally copied CD-R disc.
- The default mode is set to DIGITAL.

1. **Press the CD button to select the CD function.**
2. **Press the REC MENU button in stop mode.**
3. **Turn the JOG dial to select "INPUT SEL."**
4. **Press the ENTER button.**
5. **Turn the JOG dial to select "ANALOG ?".**
6. **Press the ENTER button.**
   The DIGITAL indicator will go out.
7. **Follow the procedures noted on page 39 to begin recording on the MiniDisc.**

- In step 5, select "DIGITAL ?" before going to step 6 in order to enable the digital mode.

Monaural extra long-time recording



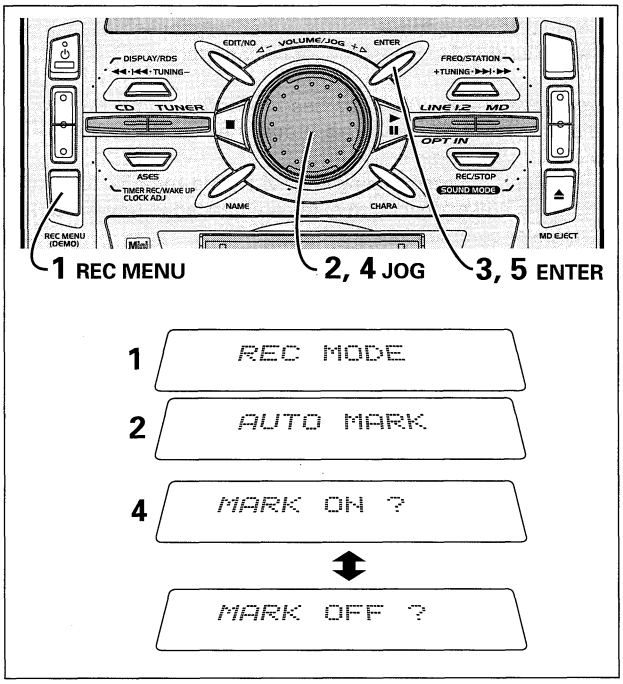
- When recording is performed using the monaural long-time mode, about twice as much recording time can be included on a single disc compared to the stereo mode.
  This function is particularly useful when recording conversations or other speech-oriented material, or when recording from monaural sources.
- Either digital or analog recording mode can be used.

1. **Press the REC MENU button while in the stop mode.**
2. **Turn the JOG dial to select "REC MODE".**
3. **Press the ENTER button.**
4. **Turn the JOG dial to select "MONO LP ?".**
5. **Press the ENTER button.**
   The MONO LP indicator will light.
6. **Follow the procedures noted on page 39 to begin recording on the MiniDisc.**

- In step 4, select "STEREO SP ?" before going to step 5 in order to enable the automatic stereo recording mode.

NOTE:
The recording mode will remain in monaural mode until manually switched back again.
As a result, to avoid forgetting to reset the stereo mode the next time you wish to record normally, it is recommended that you return the recording mode to stereo mode immediately after recording in the monaural long-time mode.

Recording an extended session as a single track



By turning off the Auto Mark function (☞ P. 36), a single continuous recording session can be recorded as a single track number (this function is available only in analog recording mode).

- The default mode is Auto Mark ON.

The Auto Mark function can be used under the following conditions:

- When making an analog recording of a CD.
- When recording sources connected to the LINE 1 or LINE 2 input connectors.
- When making a recording of a digital source other than CD or MD through the OPT IN connector.

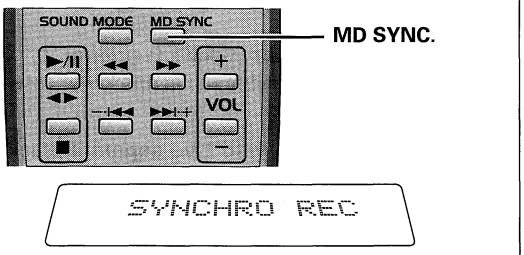
1. **Press the REC MENU button while in the stop mode.**
2. **Turn the JOG dial to select "AUTO MARK."**
3. **Press the ENTER button.**
4. **Turn the JOG dial to select "MARK OFF ?"**
5. **Press the ENTER button.**
   The A. MARK indicator will go out.
6. **Follow the procedures noted on page 39 to begin recording on the MiniDisc.**

- In step 4, select "MARK ON ?" before going to step 5 in order to enable the Auto Mark mode.

NOTES:

- *Setting of the Auto Mark mode can be set only when the unit is in stop mode.*
- *Once the Auto Mark mode is set, it will remain in that status until the mode is manually changed again. To avoid forgetting to reset the Auto Mark mode the next time you wish to record normally, it is recommended that the Auto Mark function be reset to ON immediately after recording with it turned OFF. Do this by selecting "ON" in step 6 above.*

Synchro recording start



- If a recording source signal is input while the unit is in the recording-pause mode, recording will begin automatically; when a silent interval of at least 4 seconds continues following the end of the track, the unit will automatically return to the recording-pause mode. Then when a new signal is input from the recording source, recording will be resumed (space cut function).
- Either digital or analog recording mode can be used.
- The Synchro Start recording mode cannot be used when the tuner function has been selected.

1. **Press the MD SYNC. button once on the remote control unit.**
   The unit will enter the recording-pause mode. The S. CUT indicator will light.
2. **Start playback on the desired source component.**

■ Synchro mark function

When recording from a digital source such as CD or MiniDisc, a track number is automatically entered together with each track recorded (synchro mark function). The track numbers recorded on the Mini Disc may not necessarily match the track numbers on their original sources.

■ Space cut function

- During synchro recording, when a silent space continues for four or more seconds, the unit automatically enters the recording-pause mode. If a signal is thereafter input from the source, recording is automatically resumed. As a result, during use of synchro recording, if the original interval between tracks is longer than four seconds, that interval will be cut to four seconds, a function called the "space cut function."
- The synchro recording and space cut functions may not operate properly if noise is present in the interval between tracks. In this case, use manual recording.
- Use manual recording mode to record tracks in which very low-level sounds continue for four seconds or more, or for tracks composed of conversation.

■ Auto mark function

Any silent space of 1.5 or more seconds is interpreted as an interval between tracks, and the next track number is entered automatically at that point.

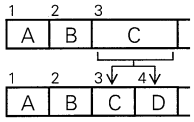
Using the MiniDisc Editing Functions (CD MD Tuner only)

Editing menu

The editing function allows you to create your own personalized disc by changing the order of tracks, dividing a single track into two, and performing other unique editing tasks, such as the following:

① **Assign names to discs (NAME function)**
Names can be composed of upper and lower case letters, numerals, and symbols.

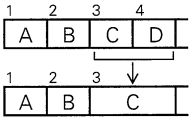
② **Divide a single track into two separate tracks (DIVIDE function)**



Here, the single track "C" is divided into two new tracks, "C" and "D".

Tracks recorded after the divided track are automatically assigned new track numbers.

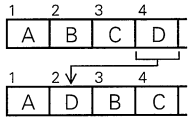
③ **Combine two consecutive tracks into a single new track (COMBINE function)**



Here, the two original tracks "C" and "D" are combined into the single track "C".

Tracks recorded after the combined track are automatically assigned new track numbers.

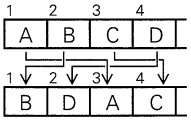
④ **Move tracks to new locations (MOVE function)**



Here, the fourth track "D" is moved two tracks earlier, between "A" and "B".

Tracks recorded after the moved track are automatically assigned new track numbers.

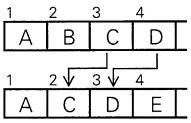
⑤ **Rearrange track order (PROGRAM MOVE function)**



Here, the order of the original tracks "A," "B," "C," "D" has been rearranged to "B," "D," "A," "C."

The tracks are rearranged in order designated by programmed play. After rearrangement, the tracks are automatically assigned new track numbers.

⑥ **Erase one or more tracks (ERASE function)**



Here, the second track "B" is erased.

The designated track is erased together with its track name. In the event that all tracks are erased, the disc name is also erased. Tracks following the one erased are automatically assigned new track numbers.

⑦ **To cancel the previous edit and return to the pre-edit condition (UNDO function).**
This function allows you to cancel the most recent editing step you have just done, and return to the condition before editing. Note that the undo function operates only for some functions; some editing functions cannot be canceled.

If you have a disc which has been recorded from CD, tape, or radio broadcast, the following procedures can be used to produce your own original disc:

1. Reorganize tracks by using the divide, and combine functions.
2. Use the erase function to eliminate unneeded tracks, conversation or commercials.
3. Use the move function to rearrange the order of tracks, or use the program move function to rearrange tracks in programmed order.
4. Use the name function to assign track and disc names.

NOTE:
The editing menu cannot be used if the disc's erasure-prevention tab is open (☞ P. 14). When using the editing menu, be sure that your disc's erasure-prevention tab is set to the closed position.

Selecting the editing menu

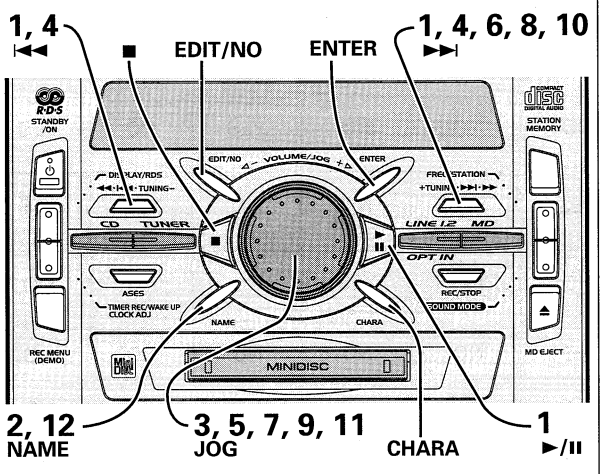
Depending on the status (operating mode) of the MD recorder, different editing menus will be available. Consult the following table to determine which editing menu can be selected.
The disc title name function can be selected only when the recorder is in the stop mode.

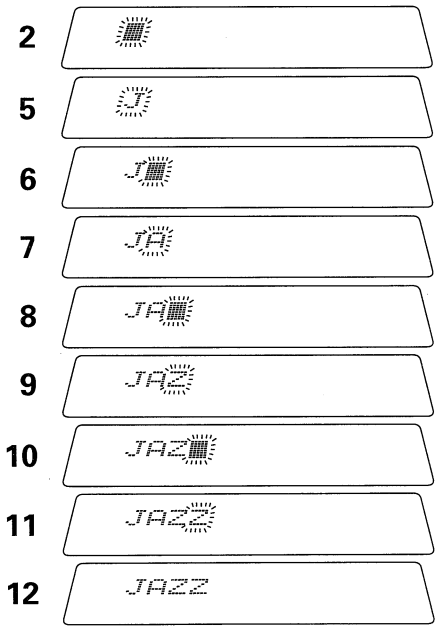
	Disc Name	Track Name	Divide	Combine	Move	Program Move	All-Erase	Track Erase	Undo
During display of disc name or total tracks* (stop mode)	YES	NO	NO	NO	NO	NO	YES	NO	YES
During display of track number (stop mode)	NO	YES	NO	YES	YES	NO	NO	YES	YES
During program mode (stop mode)	YES	NO	NO	NO	NO	YES	NO	NO	NO
During playback	NO	YES	NO	NO	NO	NO	NO	NO	NO
During playback-pause	NO	YES	YES	YES	YES	NO	NO	YES	NO
During recording/recording pause	NO	YES	NO	NO	NO	NO	NO	NO	NO

* When the track number display is showing, pressing the stop (■) button will cause the total track display to appear.

Using the MiniDisc Editing Functions (CD MD Tuner only)

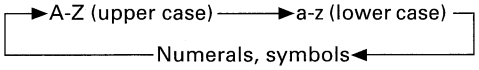
To assign a name to a track (Track name function)





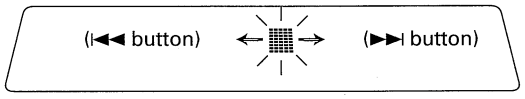
Example: To assign the name "JAZZ" to track 5

1. **Begin playback of track 5.**
   Press the play/pause button (►/II) and use the track search button (►►I) to move to track 5.
   - From the pause or stop mode, the track search buttons (I◄◄, ►►I) can also be pressed to display track 5.
2. **Press the NAME button.**
3. **Turn the JOG dial to select the desired type of character. Each time the CHARA button is pressed, the type of character changes as follows:**



Available Character Types in the MD Name Function
- Alphabet (upper case)
  ABCDEFGHIJKLMNOPQRSTUVWXYZ.,/□ [space]
- Alphabet (lower case)
  abcdefghijklmnopqrstuvwxyz.,/□ [space]
- Numerals and symbols
  0123456789!"#$%&'()*+,-./:;<=>?@_` □ [space]

4. **Use the I◄◄ and ►►I buttons to set the character input position.**



   - When the I◄◄ button is pressed, the position is moved to the left.
   - When the ►►I button is pressed, the position is moved to the right.
5. **Turn the JOG dial to select "J" as the first character.**
6. **Press the ►►I button.**
   The cursor moves to the second character position.
7. **Turn the JOG dial to select "A" as the second character.**
8. **Press the ►►I button.**
   The cursor moves to the third character position.
9. **Turn the JOG dial to select "Z" as the third character.**
10. **Press the ►►I button.**
    The cursor moves to the fourth character position.
11. **Turn the JOG dial to select "Z" as the fourth character.**
12. **Press the NAME button.**

■ **To cancel the name function midway through, press the stop (■) button.**

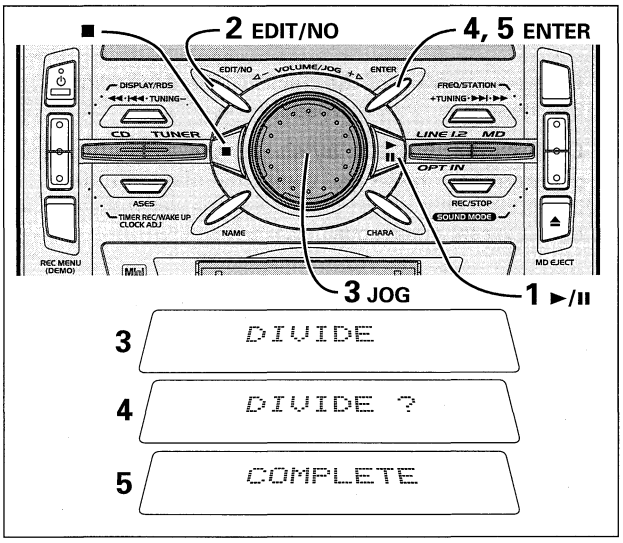
NOTES:
- *When entering a track name during recording or playback, if the track ends and the next track begins before you have completed entering the name of the first track, the characters input up to that point will be recorded as the track name. To complete the name, wait until recording or playback has been completed, then input the remainder of the name.*
- *A single name can be up to 100 characters in length.*
- *Names can be entered for all tracks (limit of 255 tracks per disc) recorded on a MiniDisc, provided that the total number of characters on the disc is less than 1,792.*

- *To delete a character, use the ⏮ and ⏭ buttons to move the cursor to the position of the character you wish to delete, then press EDIT/NO button.*
- *To insert a character, use the ⏮ or ⏭ buttons to move the cursor to the desired insert position. Then turn the JOG dial to select the character, and press the ENTER button to confirm the selection.*
- *The space characters can be found at the end of each character type listing. (In the case of the alphabet, located after "/".)*
- *To change the character type midway through the input process, use the CHARA button.*

To assign a name to a disc (Disc name function)

1. **Press the stop (■) button so that the unit stops with the total number of tracks displayed.**
2. **Continue by performing step 2 and following the Track name function section on P. 44, 45.**

To divide a single track into two (Divide function)



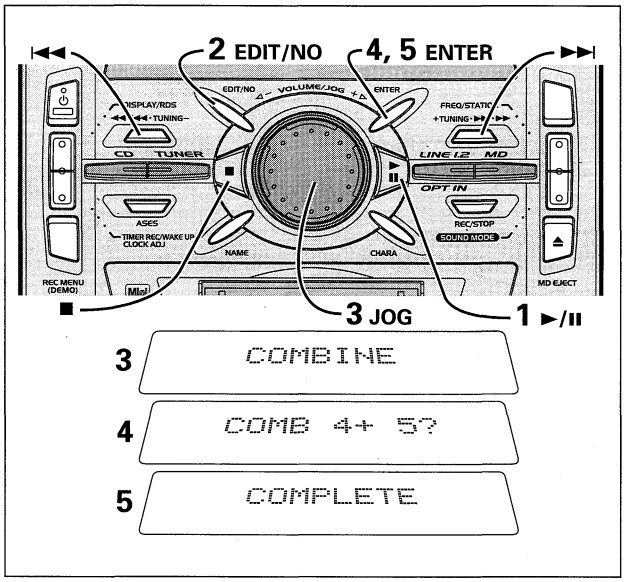
Example: To divide track 3 into two new tracks

1. **Play back track 3, and at the point you wish to divide the track, press the play/pause button (►/II).**
2. **Press the EDIT/NO button.**
3. **Turn the JOG dial to select "DIVIDE."**
4. **Press the ENTER button.**
   A confirmation message will be displayed.
5. **Press the ENTER button.**
   The "COMPLETE" display will appear, indicating that the track has been divided.

■ **To cancel the divide function, press the EDIT/NO or stop (■) button.**

- If the divided track had a track name assigned to it, both of the tracks newly created by the divide function will be given the same name.

To combine two tracks into one (Combine function)



The selected track will be combined with the track immediately preceding it.

Example: To combine tracks 4 and 5

1. **Press the play/pause button (►/II) during playback of track 5.**
   From the stop mode, press the track search buttons (⏮, ⏭) to display track 5.
2. **Press the EDIT/NO button.**
3. **Turn the JOG dial to select "COMBINE."**
4. **Press the ENTER button.**
   "COMB 4+ 5?" will be displayed.
5. **Press the ENTER button.**
   The "COMPLETE" display will appear, indicating that tracks 4 and 5 have been combined into track 4.

■ **To cancel the combine function, press the EDIT/NO or stop (■) button.**

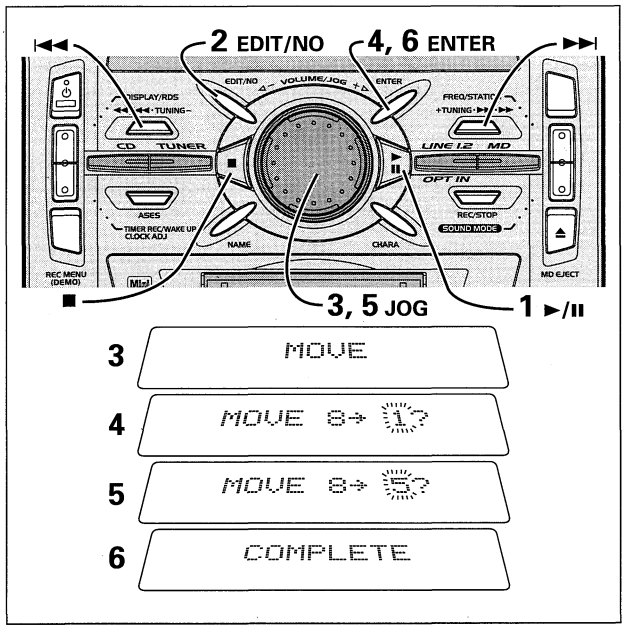
- If the combined tracks had track names assigned, the name of the earlier track (in the example above, track 4) will be assigned to the new track. If the earlier track has no track name, the name of the latter track will be assigned.
- To combine two non-contiguous tracks, first use the move function to place the tracks together, then use the combine function to join them.

NOTES:

- *A digital track cannot be combined with an analog track.*
- *A stereo track cannot be combined with a monaural track.*
- *Brief tracks with lengths of less than 15 seconds may not combined properly.*

Using the MiniDisc Editing Functions (CD MD Tuner only)

To move tracks (Move function)

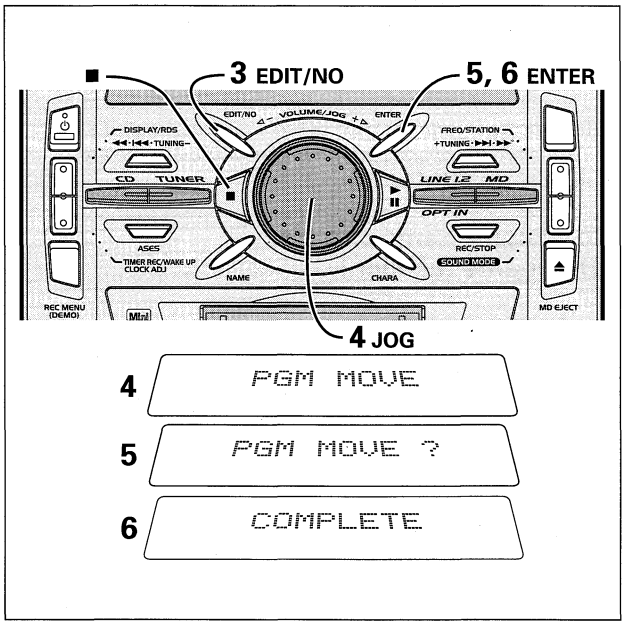


Example: To move track 8 to the position of track 5.

1. **During playback of track 8, press the play/pause button (►/II).**
   From the stop mode, press the track search buttons (I◄◄, ►►I) to display track 8.
2. **Press the EDIT/NO button.**
3. **Turn the JOG dial to select "MOVE."**
4. **Press the ENTER button.**
   "MOVE 8 → 1 ?" will be displayed.
5. **Turn the JOG dial to select position "5" as the move destination.**
6. **Press the ENTER button.**
   The "COMPLETE" display will appear, indicating that track 8 has been moved to the track 5 position.

■ **To cancel the move function, press the EDIT/NO or stop (■) button.**

To rearrange track order (Program move function)



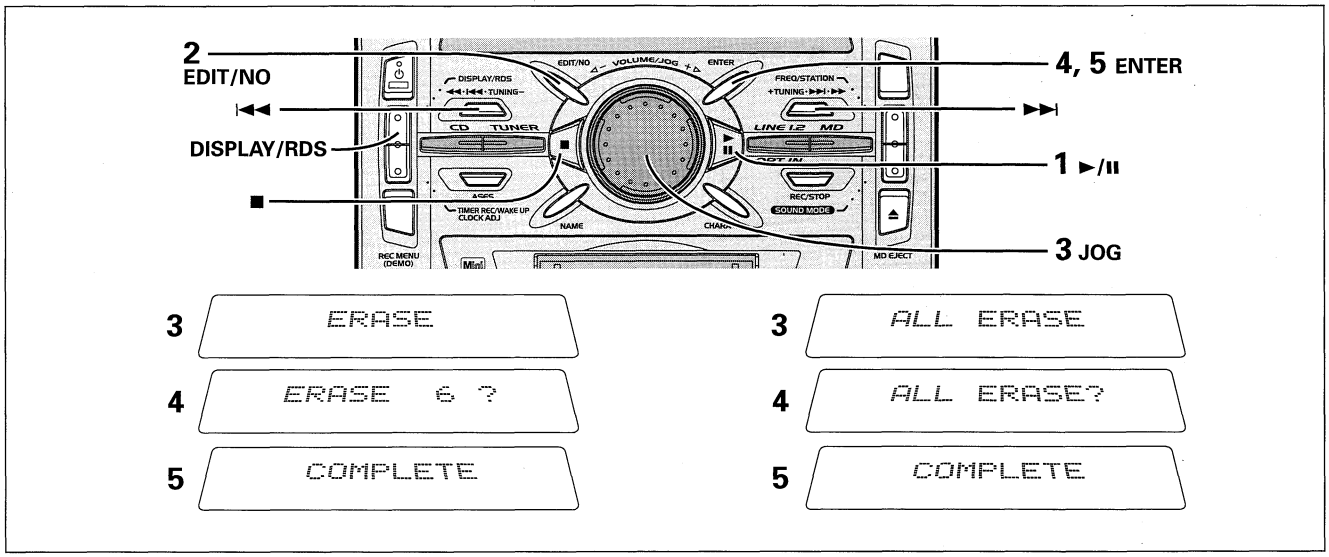
1. **Create a program of the tracks in the desired order.**
   See the section "Programmed play" on P. 34
2. **Confirm that the display shows the total number of programmed tracks and their total playing time.**
   If the unit is in the program input mode, press the stop (■) button to cancel the mode first.
3. **Press the EDIT/NO button.**
4. **Turn the JOG dial to select "PGM MOVE."**
5. **Press the ENTER button.**
6. **Press the ENTER button.**
   The "COMPLETE" display will appear, indicating that the tracks have been rearranged in the programmed order. Any tracks omitted from the program will be placed in their original order following the last programmed track.

■ **To cancel the program move function, press the EDIT/NO or stop (■) button.**

- When the same track is programmed two or more times, the latter programmed contents will be given priority.
- Non-programmed tracks will be moved so that they are now located after the rearranged tracks.

To erase a track (Track erase function)

To erase all tracks on a disc (All-erase function)



Example: To erase track 6

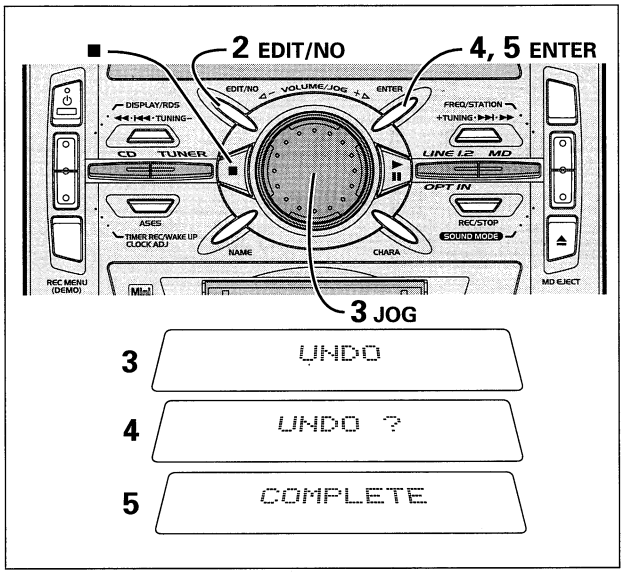
1. **During playback of track 6, press the play/pause button (►/II).**
   From the stop mode, press the track search buttons (I◄◄, ►►I) to display track 6.
2. **Press the EDIT/NO button.**
3. **Turn the JOG dial to select "ERASE".**
4. **Press the ENTER button.**
   A confirmation message will be displayed.
5. **Press the ENTER button.**
   The "COMPLETE" display will appear, indicating that track 6 has been erased.

■ **To cancel the erase function, press the EDIT/NO or stop (■) button.**

1. **Press the stop (■) button so that the unit stops with the display showing either the disc name or total track number.**
   The display can be selected by pressing the DISPLAY/RDS (DISP) button (☞ P. 35)
2. **Perform steps 2-5 of the "track erase" function procedure above.**
   However, in the case of all track erase, the display will show "ALL ERASE" in step 3, and "ALL ERASE?" in step 4.

Using the MiniDisc Editing Functions (CD MD Tuner only)

To cancel the most recent editing operation (UNDO Function)



1. **Press the stop (■) button.**
   Playback can also be set to the pause mode if desired.
2. **Press the EDIT/NO button.**
3. **Turn the JOG dial to select "UNDO."**
4. **Press the ENTER button.**
   A confirmation message will be displayed.
5. **Press the ENTER button.**
   The "COMPLETE" display will appear, indicating that the last editing function has been canceled.

■ **To cancel the undo function, press the EDIT/NO or stop (■) button.**

Editing functions which can be canceled with the UNDO function

- Move
- Program move
- Divide
- Combine
- Track erase
- All erase
- Name input, change, erase (only for names input during the stop mode)

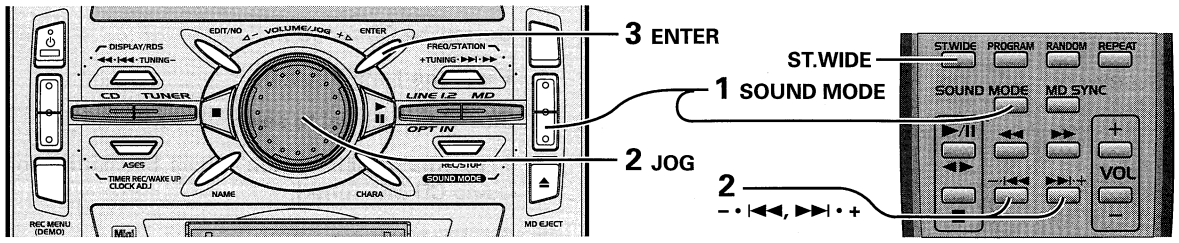
Editing functions which cannot be canceled with the UNDO function

In these cases, the "CAN'T UNDO" indicator will be displayed

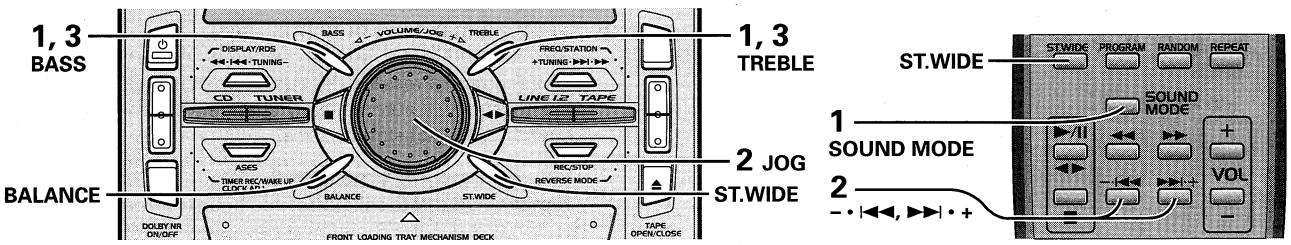
- When the MiniDisc is removed (UTOC is rewritten).
- When power is turned off (UTOC is rewritten).
- In event of power failure.
- When a further edit operation has been undertaken after the one you wish to cancel.
- When recording has already begun.
- When the UNDO function has already been invoked.

Sound Control

[CD MD Tuner]



[CD Tuner Deck]



Adjusting the high/low frequency ranges (Tone control)

[CD MD Tuner]

1. **Press the SOUND MODE button to select the range you wish to adjust ("BASS" or "TREBLE").**
   Each time the button is pressed, the available adjustments will change in the sequence shown.

   → BASS ⟶ TREBLE ⟶ BALANCE →

   To adjust the high tone .... Select TREBLE
   To adjust the low tone ..... Select BASS
2. **Turn the JOG dial or press the – • |◄◄/►►| • + buttons on the remote control unit to adjust the tone as desired.**
   (Tone can be adjusted within a range of –4 to +4 steps.)
3. **Press the ENTER button.**
   - Even if the ENTER button is not deliberately pressed to confirm the setting, the setting will be automatically confirmed about five seconds after completing the tone level adjustment.

[CD Tuner Deck]

1. **Press the BASS or TREBLE button to select the range you wish to adjust.**
2. **Turn the JOG dial to adjust the tone as desired.**
3. **Press the BASS or TREBLE button (the same button pressed in step 1).**
   - When operating with the remote control unit, use the same method as listed above for CD MD Tuner.

To adjust the right-left balance

[CD MD Tuner]

1. **Use the SOUND MODE button to select "BALANCE."**
2. **While listening to the sound from the speakers, turn the JOG dial or press the remote control unit's |◄◄, ►►| buttons to adjust the right-left balance.**
   Adjust the balance so that center sounds (vocals, monaural sources, etc.) appear to come from exactly between the right and left speakers.
   - Adjustments can be performed within the range of Left 10↔Center↔Right 10 in steps.
3. **Press the ENTER button.**
   - Even if the ENTER button is not deliberately pressed to confirm the setting, the setting will be automatically confirmed about five seconds after completing the balance level adjustment.

[CD Tuner Deck]

1. **Press the BALANCE button.**
2. **Turn the JOG dial to adjust the right-left balance.**
3. **Press the BALANCE button.**

- When operating with the remote control unit, use the same method as listed above for CD MD Tuner.

Stereo Wide

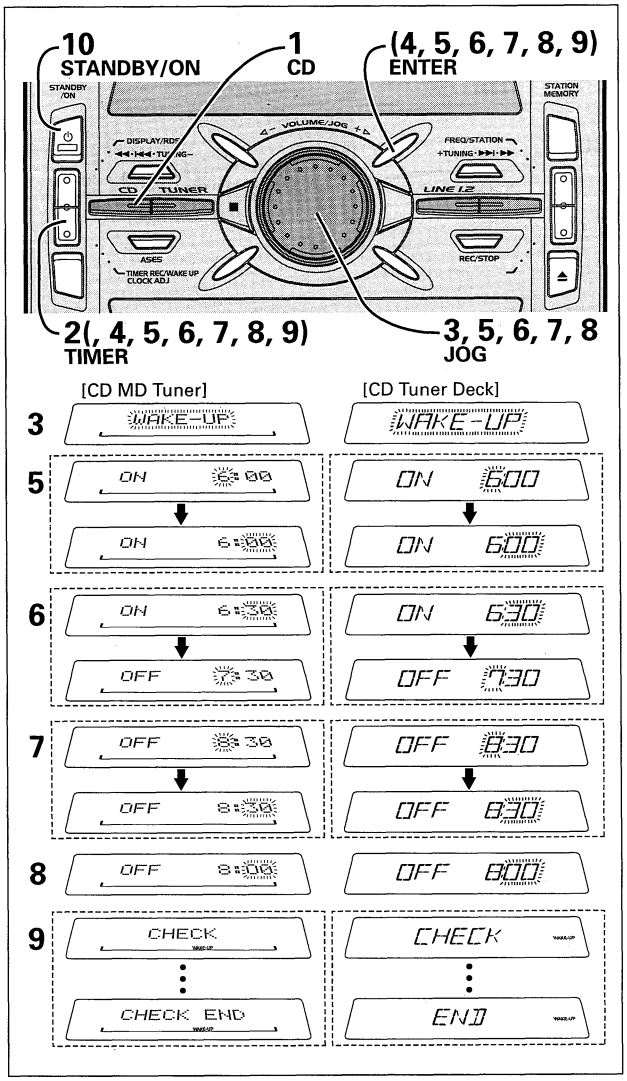
This function produces a wider, more spacious sense of stereo sound.

1. **Press the ST. WIDE button on the remote control unit. The ST. WIDE indicator lights.**
   Each time you press this button, the stereo wide effect switches ON/OFF.

- The ST. WIDE button can also be found on the CD Tuner Deck's main control panel; this button operates in the same way as that on the remote control unit.

Using the Timer

Wake-up timer



Timer functions cannot be used if the current time has not been properly set on the clock. (☞ P. 15)

First of all. . .

Prepare the source you wish to play.

CD: Load the desired disc.

Tuner: Tune the receiver to the desired broadcast station. The station received when the timer is set will be turned on by the timer.

Tape: Load the desired playback cassette tape.

MD: Load the desired disc.

Adjust the volume as desired

This will be the volume used when the timer turns the component on.

Example: Using the timer to play back a CD from 6:30 to 8:00 A.M.

1. **Select the CD function.**
2. **Press the TIMER button.**
3. **Turn the JOG dial to select "WAKE-UP."**
4. **Press the TIMER button (Press ENTER button when using CD MD Tuner).**
5. **Set the timer start time (hour).**
   Turn the JOG dial to set the desired hour, then press the TIMER button (Press ENTER button when using CD MD Tuner).
6. **Set the timer start time (minutes).**
   Turn the JOG dial to set the desired minutes, then press the TIMER button (Press ENTER button when using CD MD Tuner). The display will automatically change to show the time one hour after the set starting time.
7. **Set the timer off time (hour).**
   Turn the JOG dial to set the desired hour, then press the TIMER button (Press ENTER button when using CD MD Tuner).
8. **Set the timer off time (minutes).**
   Turn the JOG dial to set the desired minutes.
9. **Press the TIMER button (Press ENTER button when using CD MD Tuner) and the selected time will be automatically confirmed.**
   After a few seconds, the timer check is completed.
10. **Turn off the unit power.**
    The system will enter the standby mode.

■ To cancel the setting procedure midway through:

Press one of the operation buttons.

■ To change the timer settings:

Repeat the setting procedure from the first step. If one of the setting contents is the same, however, merely press the TIMER button (Press ENTER button when using CD MD Tuner) and go on to the next setting.

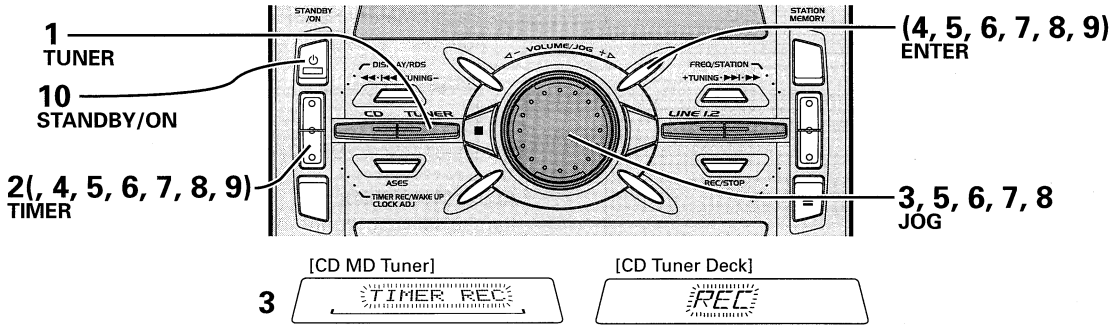
■ To turn off the timer function:

① Press the TIMER button.
② Turn the JOG dial to select the "WAKE-UP" mode.
③ Press the TIMER button (Press ENTER button when using CD MD Tuner).
The "TIMER OFF"display will appear and WAKE-UP indicator will turn off.

NOTES:

- *Once set, the wake-up timer will operate at the same time each day until reset or turned off.*
- *If the TIMER button is pressed when the power is set to off (standby), the current timer setting contents can be checked.*

Unaccompanied Recording (Timer Recording)



First of all . . .

- Unaccompanied (timer) recording can be performed only from the tuner, or a source component connected to the LINE1, 2, OPT IN jacks. When selecting LINE1, 2, OPT IN be sure to set the connected component to start playing at the time set for recording.
- When selecting tuner, set the tuner to the station you wish to record. The station selected during the timer setting process will be the one turned on by the timer.
- **When recording to MD [CD MD Tuner only]:**
  Load a recordable MD and set the unit to the proper condition for recording (☞ P. 39).
- **When recording to cassette tape [CD Tuner Deck only]:**
  ① Insert a tape for recording.
  ② Use the play button to select the initial recording direction (◄ or ►).
  ③ Set Dolby NR and reverse mode as desired.

Example: To record a radio broadcast on MD or cassette tape from 6:30 A.M. to 8:00 A.M.

1. **Tune in the radio station you wish to record.**
   (For details regarding tuning, ☞ P. 17, 19)
2. **Press the TIMER button.**
3. **Turn the JOG dial to select "TIMER REC" or "REC".**
4. **Continue by performing steps 4 – 10 the Wake-up timer section on P.50.**

■ **To cancel the setting procedure midway through:**
Press one of the operation buttons.

■ **To change the timer settings:**

Repeat the setting procedure from the first step. If one of the setting contents is the same, however, merely press the TIMER button (Press the ENTER button when using CD MD Tuner) and go on to the next setting.

■ **To turn off the timer function:**

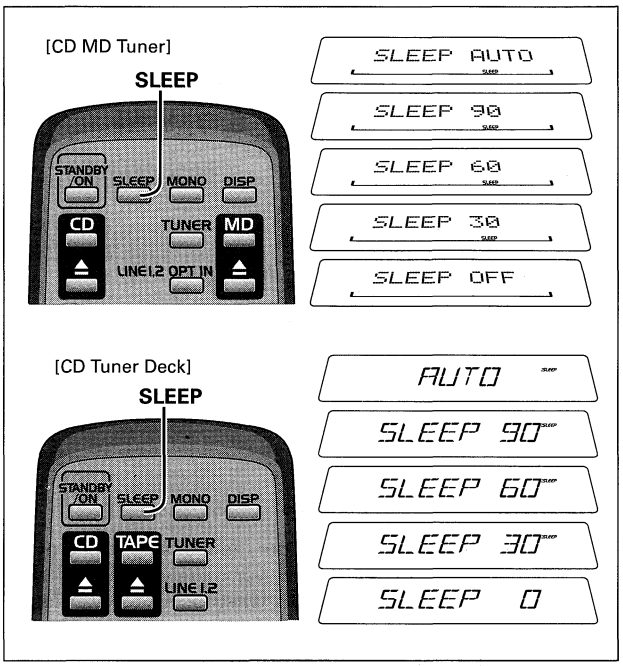
① Press the TIMER button.
② Turn the JOG dial to select the "TIMER REC" or "REC" mode.
③ Press the TIMER button (Press the ENTER button when using CD MD Tuner).
The "TIMER OFF" display will appear and the TIMER REC indicator will turn off.

- During timer recording, the volume level is automatically set to "0," and no sound is produced from the speakers.
- During timer recording, the selected timer settings operate once only, after which the timer operation is automatically turned off.

NOTES:

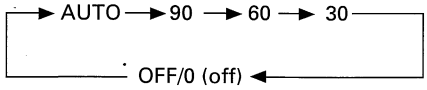
- *Following timer recording, the sound volume automatically remains set at "0".*
- *If the TIMER button is pressed when the power is set to off (standby), the current timer setting contents can be checked.*

Sleep timer



- Power turns off automatically after the specified time has elapsed.

1. **Press the SLEEP button on the remote control unit.**
   Each time the SLEEP button is pressed, the time changes as follows:



AUTO (Auto Sleep)
Can be selected during playback of CD, MD, or cassette tape, or during recording of MD or cassette tape.
If playback or recording ends, the timer will automatically turn off one minute later.

NOTES:
- *AUTO cannot be selected when performing repeat playback of a CD or MD.*
- *AUTO cannot be selected when performing endless play of a cassette tape.*

Troubleshooting

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used. If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service station to carry out repair work.

	Symptom	Likely Cause	Remedy
Common to all components	**No sound**	● Power plug is disconnected. ● Not all connection cables are connected properly. ● Input selector is not set correctly.	● Connect the power plug correctly ● Refer to the section on connections and make sure all connections are correct and secure. ● Select the desired component.
	Can't switch between functions.	● Cassette deck or MD recorder is currently recording.	● Function selector cannot be operated during recording.
CD player	**Play doesn't start when the play/pause button is pressed.**	● Disc has been inserted upside down. ● Disc is dirty. ● Disc has scratches. ● Input selector is not set to CD	● Load discs with label side (printed surface) upwards. ● Clean the disc. ● Replace the disc. ● Press the CD function button.
Tuner	**Can't listen to broadcasts, or sound is distorted.**	● Antenna isn't connected. ● Antenna direction or position is poor. ● An electrical appliance (fluorescent lamp, hair dryer, etc.) is being used in the near vicinity. ● The frequency interval is incorrectly set.	● Connect the antenna properly. ● Orient antenna to the proper direction and position. ● Discontinue use of the appliance producing the noise, or move it farther away from the antenna. ● Change the frequency step (☞ P. 18).
	Broadcast is in stereo, but sound from speakers is monaural.	● Monaural indicator is lit in the display.	● Press the MONO button so that the "MONO" indicator disappears. (☞ P. 18).
Tape Deck (CD Tuner Deck only)	**Cassette tray doesn't open.**	● Electric power cord has been disconnected during tape travel.	● Reconnect the power cord.
	Can't record	● Erasure-prevention tabs are broken out from the tape cassette.	● Either replace the tape, or place cellophane tape over the erasure-prevention tabs (☞ P. 13).
	Sound is muddy or distorted. When recording over a previously recorded tape, the previous recording can still be heard.	● Heads are dirty.	● Clean the heads (☞ P. 13).
	Playback sound is muddy or distorted; high frequency sounds are excessively emphasized.	● The Dolby NR setting is not the same as that used during recording.	● Set the Dolby NR system to the same setting as that used during recording (☞ P. 30).
	Sounds recorded from LINE 1 are distorted.	● LINE 1 input level is too high.	● Set LINE 1 input level to ATT ON (☞ P. 32).
	Sounds recorded from LINE 1 are too faint.	● LINE 1 input level is set to ATT ON.	● Set LINE 1 input level to ATT OFF (☞ P. 32).

Troubleshooting

	Symptom	Likely Cause	Remedy
MiniDisc recorder (CD MD Tuner only)	**Can't record.**	● MD's erasure-prevention tab is open. ● Playback-only MD is loaded. ● TOC is full. (Due to repeated recording and editing.)	● Close the erasure-prevention tab. ● Replace the MD. ● Erase all tracks to restore TOC to initial status and allow further recording.
	Recordings are in monaural.	● Mode is set to monaural long-time mode.	● Set recording mode to stereo mode (☞ P. 40)
	"NO DISC" display appears even when disc is loaded.	● Disc is scratched or damaged.	● Replace the disc.
	Sound is intermittent or interrupted.	● Condensation has formed inside the MD recorder.	● Wait for one hour and try again.
	Available recording time doesn't increase even when short tracks are erased.	● Tracks of 12 seconds or less may not be counted as tracks.	● Not a malfunction.
	Sum of already recorded time and remaining available time doesn't match maximum recording time possible.	● Minimum recording unit is a cluster of 2 seconds; recorded intervals of less than 2 seconds are counted as a full 2 seconds, reducing the total available time. ● Disc has a scratch, and player has made that space unavailable for recording.	● Not a malfunction. ● Replace the disc.
	Tracks can't be combined.	● May occur on discs which have been subjected to repeated recording and editing. ● You are attempting to combine digital tracks and analog tracks. ● You are attempting to combine monaural recorded tracks and stereo recorded tracks.	● Not a malfunction. ● Digital tracks cannot be combined with analog tracks. ● Monaural recorded tracks cannot be combined with stereo recorded tracks.
	Sounds recorded from LINE 1 are distorted.	● LINE 1 input level is too high.	● Set LINE 1 input level to ATT ON (☞ P. 39).
	Sounds recorded from LINE 1 are too faint.	● LINE 1 input level is set to ATT ON.	● Set LINE 1 input level to ATT OFF (☞ P. 39).
Others	**Timer doesn't operate.**	● Clock isn't set to the correct current time. ● Power interruption has caused the clock to be set to the incorrect time (when display is flashing).	● Reset the clock to the correct current time. (☞ P. 15) ● Reset the clock to the correct current time. (☞ P. 15)
	Remote control unit doesn't work.	● Batteries are exhausted. ● A fluorescent lamp is located close to the remote control unit. ● The remote control unit is not pointed at the signal receiver on the main unit.	● Load new batteries. ● Remove the fluorescent lamp from the area of the remote control unit. ● Point the remote control unit at the remote sensor (located on the right side of the main unit) when operating.
	Power won't turn on to the CD MD Tuner or CD tuner deck.	● System cable connection is incorrect.	● Connect the system cable correctly.

- When the system is installed near a television set, magnetic influence from the speakers may cause the television's picture to be distorted. This symptom frequently occurs when using an indoor antenna; in this event, install an outdoor antenna, or separate the system farther from the television.
- For more information about display messages relating to the MD Recorder, ☞ P. 38.
- Static electricity and other outside electrical influences may cause the system to operate incorrectly. In such cases, unplugging and reconnecting the power cord may help correct the problem.

Specifications

CD MD Tuner : XC-IS21MD
CD Tuner Deck : XC-IS21T

■ Amplifier Section

Continuous Power (RMS) ..... 100 W + 100 Wz
(1 kHz, THD 10%, 6 Ω)
Continuous Power (DIN) ..... 65 W + 65 W
(1 kHz, THD 1%, 6 Ω)
Music Power (DIN) ..... 150 W + 150 W
(1 kHz, THD 1%, 6 Ω)

■ FM Tuner Section

Frequency Range ..... 87.5 - 108MHz
Antenna ..... 75 Ω, unbalanced

■ AM Tuner Section

Frequency Range ..... 531 kHz - 1,602 kHz (9 kHz step);
530 kHz - 1,700 kHz (10 kHz step)
Antenna ..... Loop antenna

■ Compact Disc Player Section

Type ..... Compact disc digital audio system
Usable discs ..... Compact discs
Wow and Flutter ..... Limit of measurement
(0.001%) or less (EIAJ)

■ MiniDisc Recorder Section (XC-IS21MD)

Recording Method ..... Magnetic field modulation
overwriting type
Playback Method ..... Non-contact optical type
Sampling Frequency ..... 44.1 kHz
Wow and Flutter ..... Limit of measurement
(±0.001% W.PEAK) or less (EIAJ)

■ Cassette Deck Section (XC-IS21T)

System ..... 4-track, 2-channel stereo
Heads ..... Recording/playback head x 1
Erasing head x 1
Motor ..... DC Servo motor x 1
Tape type ..... TYPE I (Normal), TYPE II (High/CrO_2)

■ Micellaneous

Power Requirements ..... AC230 V, 50/60 Hz
Power Consumption ..... 120 W
Power Consumption in standby mode ..... 1 W
Dimensions:
CD MD Tuner/CD Tuner Deck
..... 205 (W) x 300 (H) x 237 (D) mm
Power Amplifier ..... 150 (W) x 300 (H) x 233 (D) mm
Weight:
CD MD Tuner ..... 3.1 kg
CD Tuner Deck ..... 2.9 kg
Power Amplifier ..... 4.0 kg

■ Accessories

Operating Instructions 2
Warranty Card 1
FM antenna 1
AM loop antenna 1
Remote control unit 1
Dry cell batteries (AA/R6) 2
Power cord 1
RCA pin-plug stereo cable 1
System cable 1

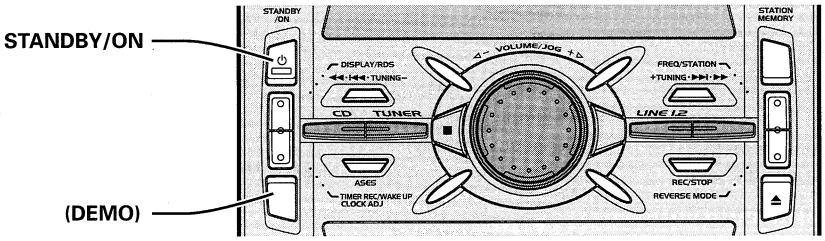
Speaker System : S-IS21

Enclosure ..... Bass-reflex bookshelf type
System ..... 17 cm 3-way system
Loudspeakers:
Woofer ..... 17 cm cone type
Mid-range ..... 6.6 cm cone type
Tweeter ..... 2 cm dome type
Nominal impedance ..... 6 Ω
Frequency response ..... 40 Hz to 20 kHz
Music power (DIN) ..... 100 W
Dimensions ..... 210 (W) x 366.5 (H) x 265 (D) mm
Weight ..... 4.0 kg

■ Accessories

Speaker cords 2
Non skid pads 8

NOTE:
Specifications and design subject to possible modification without notice, due to improvements.



DEMO FUNCTION

The Demo mode starts automatically when the power cord is plugged into the power outlet.

Also, when the DEMO button is pressed for three seconds in the STANDBY mode, the Demo mode is activated.

In the Demo mode, various functions of this system appear on the display.

- The Demo mode can be cancelled by pressing the STANDBY/ ON switch or Function button.
- If you continue pressing the DEMO button for three seconds or more when in the Demo mode, the Demo mode is canceled. While the Demo mode is canceled, it will not operate even if you connect the power cord to a wall socket. To reactivate the Demo mode, press the DEMO button for three seconds or more when in the STANDBY mode.

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